

# Oklahoma County

## Subdivision Regulations

June 2008



Revised September 2005; June 2008  
Oklahoma County  
Planning Commission

*This document is set up for doubled sided printing.*

# Acknowledgements

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**Oklahoma County Planning Commission May 15, 2008.**

**Adopted:**

**Oklahoma County Board of County Commissioners June 11, 2008.**

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## **SECTION I - GENERAL PROVISIONS**

### **1.1 Title.**

These regulations shall officially be known, cited and referred to as the Subdivision Regulations of Oklahoma County (hereinafter “these regulations”).

### **1.2 Policy.**

1. It is declared to be the policy of the County to consider the subdivision of land and the subsequent development of the subdivided plat as subject to the control of the County and for the orderly, planned, efficient, and economical development of the County.
2. Land to be subdivided shall be of such character that it can be used safely for building purposes without danger to health or peril from fire, flood, or other menace, and land shall not be subdivided until adequate public facilities and improvements exist and proper provision has been made for, but not limited to, drainage, water, and sewerage.
3. These regulations shall supplement and facilitate the enforcement of the provisions and standards contained in building codes, zoning regulations, floodplain regulations, and the Oklahoma County Master Plan.

### **1.3 Purpose.**

1. To protect and provide for the public health, safety and general welfare of the County.
2. To assure new development in unincorporated Oklahoma County meets the goals and conforms to the objectives and policies of the Oklahoma County Master Plan.
3. To provide for adequate light, air, and privacy to secure safety from fire, flood and other danger, and to prevent overcrowding of the land and undue congestion of population.
4. To protect and conserve the value of land throughout the County and the value of buildings and improvements upon the land and to minimize the conflicts among the uses of land and buildings.
5. To provide the most beneficial relationship between the uses of land and buildings and the circulation of traffic throughout the County, having particular regard to the avoidance of congestion on the streets and highways, and to provide for the proper location and width of streets and building lines.
6. To establish reasonable standards of design and procedures for subdivisions in order to further the orderly layout and use of land and to ensure proper legal descriptions of subdivided land.
7. To ensure that public facilities and services are available concurrent with development and will have a sufficient capacity to serve the proposed subdivision.
8. To prevent the pollution of air, streams, and ponds; to assure the adequacy of drainage facilities; to safeguard the water table, and to encourage the wise use and management of natural resources throughout the County in order to preserve the integrity, stability, and beauty of the community and the value of the land.

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9. To provide for open spaces through the most efficient design and layout of the land, including the use of average density in providing for minimum width and area of lots, while preserving the density of development as established in the County Zoning Regulations.
10. To ensure that land is subdivided only when subdivision is necessary to provide for uses of land for which market demand exists and which are in the public interest.

### **1.4 Authority.**

The Oklahoma County Planning Commission (hereinafter "Planning Commission") is vested with the authority to review, approve, conditionally approve, and disapprove applications for the subdivision of land, as described in Section 1.5 of these regulations and O.S. Title 19 §868.8, including General Plats, Preliminary Plats, and Final Plats, subject to approval and acceptance of any public dedications thereon by the Oklahoma County Board of County Commissioners.

### **1.5 Jurisdiction.**

#### **1. Application of Regulations.**

These regulations apply to all subdivision of land located within unincorporated Oklahoma County and as defined below:

##### ***Subdivision***

- a) Division of land into three (3) or more tracts or lots.
- b) Construction of a road or street or the dedication of any roadway easement through a tract of land, regardless of area.
- c) Re-subdivision of land hereto previously divided or platted into lots or parcels.
- d) Rezoning of a parcel or tract of land if not previously platted.
- e) No land shall be subdivided, sold, leased, or transferred until each of the following conditions has occurred in accordance with these regulations:
  - i. The developer or his agent has submitted a conforming general plat of the proposed subdivision to the Planning Commission staff for the Planning Commission; and
  - ii. The developer or his agent has obtained approval of the general, preliminary and final plat from the Planning Commission and the Board of County Commissioners and any other entity as required by law.
  - iii. The developer or his agent has filed the approved, signed plat(s) with the Registrar of Deeds for the County of Oklahoma; a copy of the filed final plat(s) shall be submitted to the Planning Department.

##### ***Lot Split***

- f) The division of land into two (2) lots.
- g) Maximum of one lot split allowed per owner, per property. Otherwise, further splitting must be achieved through the formal platting process.
- h) Lot Splits are **not** considered an appropriate method of platting property.

**2. Conformance to Regulations.**

No building permit or certificate of occupancy shall be issued for any parcel, lot, or plat of land created by subdivision or lot split after the effective date of these Regulations and not in substantial conformity with the provisions of these regulations; no excavation of land or construction of any public or private improvements shall take place or be commenced except in conformity with these regulations. (See also Section 5.6.)

**1.6 Enactment.**

In order that land may be subdivided in accordance with these purposes and policies, these subdivision regulations are hereby adopted and made effective as of June 8, 2008. All applications for subdivision approval, including final plats, pending on the effective date of these regulations shall be reviewed under these regulations.

**1.7 Interpretation, Conflict, and Separability.**

**1. Interpretation.**

In their interpretation and application, the provisions of these regulations shall be held to be the minimum requirements for the promotion of the public health, safety, and general welfare. These regulations shall be construed broadly to promote the purposes for which they are adopted.

**a) Public Provisions.** These regulations are not intended to interfere with, abrogate, or annul any other regulation or rule. Where any provision of these regulations imposes restrictions different from those imposed by any other rule or regulation, the provision which is more restrictive or imposes higher standards shall control.

**b) Private Provisions.** These regulations are not intended to abrogate any easement, covenant, or any other private agreement or restriction, provided that where the provisions of these regulations are more restrictive or impose higher standards or regulations than such easement, covenant, or other private agreement or restriction, the requirements of these regulations shall govern. Where provisions of any private easement, covenant, agreement, or restriction impose duties and obligations more restrictive or standards that are higher than the requirements of these regulations or the determinations of the Planning Commission or the Board of County Commissioners in approving a subdivision or in enforcing these regulations, and the private provisions are not inconsistent with these regulations or the determinations made under these regulations, then the private provisions shall remain operative.

**c) Enforcement of Private Provisions or Homeowners Covenants.** Private covenants or homeowners association bylaws will not supersede any regulations or codes; Oklahoma County has no responsibility or jurisdiction for enforcement of any private covenant or homeowner association bylaw or requirement.

### **2. Severability.**

If any part or provision of these regulations or the application of these regulations to any person or circumstances is adjudged invalid by any court of competent jurisdiction, the judgment shall be confined in its operation to the part, provision, or application directly involved in the controversy in which the judgment shall be rendered and it shall not affect or impair the validity of the remainder of these regulations or the application of them to other persons or circumstances. The County Commissioners of Oklahoma County hereby declares that it would have enacted the remainder of these regulations even without any such part, provision, or application which is judged to be invalid.

### **1.8 Saving Provision.**

These regulations shall not be construed as abating any action now pending under, or by virtue of, prior existing subdivision regulations, or as discontinuing, abating, modifying, or altering any penalty accruing or about to accrue, or as affecting the liability of any person, firm, or corporation, or as waiving any right of the County under any section or provision existing at the time of adoption of these regulations, or as vacating or annulling any rights obtained by any person, firm, or corporation by lawful action of the County except as shall be expressly provided for in these regulations.

### **1.9 Reservations and Repeals.**

Upon the adoption of these regulations according to law, the Rules and Regulations Governing the Subdivision of Land in Oklahoma County adopted in 1991 and 2005, as amended, are hereby repealed, except as to those sections expressly retained in these regulations.

### **1.10 Amendments.**

For the purpose of protecting the public health, safety, and general welfare, the Planning Commission may from time to time propose amendments to these regulations which shall then be approved or disapproved by the Board of County Commissioners of Oklahoma County at a public meeting following public notice.

### **1.11 Public Purpose.**

Regulation of the subdivision of land and the attachment of reasonable conditions to land subdivision is an exercise of police power delegated by the State of Oklahoma to this County, by virtue of O.S. Title 19 O.S. §868. The developer has the duty of compliance with reasonable conditions laid down by the Planning Commission for design, dedication, improvement, and restrictive use of the land to conform to the physical and economic development of the County and to the health, safety, and general welfare of the future lot owners in the subdivision and of the community at large.

## **1.12 Variance and Waiver of Conditions.**

### **1. General.**

These general rules shall provide for the modification thereof by the Planning Commission in specific cases where unusual topographical or other exceptional conditions may require the same (O.S. Title 19 O.S. §868.8). Where the Planning Commission finds that extraordinary hardships or practical difficulties may result from strict compliance with these regulations and/or the purposes of these regulations may be served to a greater extent by an alternative proposal, the Planning Commission may approve variances to these regulations so that substantial justice may be done and the public interest secured, provided that the variance shall not have the effect of nullifying the intent and purposes of these regulations; and further provided that the Planning Commission shall not approve variances or exceptions unless it shall make findings based upon the evidence presented to it in each specific case that:

- a) The granting of a variance or exception will not be detrimental to the public safety, health, or welfare or injurious to other property;
- b) The conditions upon which the request is based are unique to the property for which the relief is sought and are not applicable generally to other property;
- c) Because of the particular physical surroundings, shape, or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations is carried out;
- d) The variance will not in any manner vary or alter the provisions of the Zoning Regulations, except in the manner prescribed by an approved Planned Unit Development governing the subdivision and/or development of the property.

### **2. Conditions.**

In approving variances or exceptions, the Planning Commission may require such conditions as will, in its judgment, secure substantially the purposes described in Section 1.3 of these regulations.

### **3. Procedures.**

An application for a variance or exception shall be submitted in writing by the subdivider or his designee with the General Plat, Preliminary Plat application, or the Final Plat application. The request for variance shall state fully the grounds for the application and all of the facts relied upon by the applicant. The variance, if granted, shall be incorporated into the Final Plat(s) with no further action or request for same required.

### **4. Relief.**

An application for relief may be denied if an owner requests it merely for his own convenience, such as when the land is not usable due to error or poor assumptions on the owner's part, or when the only supporting evidence is that compliance would add significantly to development costs.

### **5. Required Vote.**

Variances to these regulations shall be granted by an affirmative vote of two thirds (2/3) of the full Planning Commission.

### **6. Appeals.**

Appeals from any action taken by the Planning Commission may be taken in the manner provided by law.

## **1.13 Appeals to the Board of Adjustment.**

Appeals to the Oklahoma County Board of Adjustment (Board of Adjustment) may be taken by any person aggrieved or by a public officer, department, board, or bureau affected by any decision of the County Engineer in administering the County Zoning Regulations pursuant to O.S. Title 19 §868.10, §868.18 and §868.19. Such appeals shall be taken within a period of not more than ten (10) days, by filing written notice with the Board of Adjustment stating the grounds therefore. An appeal shall stay all proceedings in furtherance of the action appealed from, unless the officer from whom the appeal is taken shall certify to the board that by reason of facts stated in the certificate a stay would, in his opinion, cause imminent peril to life or property.

### **1. Powers.**

The County Board of Adjustment shall have the following powers and it shall be its duty:

- a) **Error of Law.** To hear and decide appeals where it is alleged there is error of law in any order, requirement, decision, or determination made by the County Engineer in the enforcement of the County Zoning Regulations;
- b) **Map Interpretations.** To hear and decide requests for map interpretations or for decisions on other special questions upon which it is authorized to pass by the regulations adopted by the Board of County Commissioners; and
- c) **Hardship.** Where, by reason of exceptional narrowness, shallowness, shape, topography or other extraordinary or exceptional situation or condition of a specific piece of property, the strict application of any regulation adopted would result in peculiar and exceptional difficulties to, or exceptional and demonstrable undue hardship upon, the owner of such property, to authorize, upon an appeal relating to such property, a variance from such strict application so as to relieve such demonstrable difficulties or hardships, provided such relief can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the Zoning Plan as embodied in the Zoning Regulations and map. For every variance granted, the County Board of Adjustment shall state in detail as a matter of record the exceptional and demonstrable undue hardship upon the owner of such property. In exercising the above powers, such board may, in conformity with the provisions of the act, reverse or affirm wholly or partly or may modify the order, requirement, decision or determination appealed from

and may make such order, requirement, decision or determination as should be made, and to that end shall have all the powers of the officer from whom the appeal is taken.

**2. Appeals.**

Appeals from any action taken by the Board of Adjustment may be taken in the manner provided by law.

**1.14 Enforcement, Violations, and Penalties**

**1. General.**

The County Engineer shall have the duty of administering the rules and regulations in these regulations and shall make inspections and investigations as may be necessary to enforce the rules and regulations set forth herein.

- a) No owner, or agent of the owner, of any parcel of the land located in a proposed subdivision shall transfer or sell any part of the parcel before a final plat of the subdivision has been approved by the Planning Commission and Board of County Commissioners and filed with the Oklahoma County Registrar of Deeds.
- b) No building permit shall be issued for the construction of any building or structure located on a lot or plat subdivided or sold in violation of the provisions of these regulations, nor shall the County have any obligation to issue a Certificate of Occupancy to any parcel created or any building constructed in violation of these regulations. (See also Section 5.6.)

**2. Enforcement.**

Any violation of these rules and regulations shall be deemed a misdemeanor and shall be punishable by fine or imprisonment or both, as now provided by law for misdemeanors. The proper County authorities or any person affected by such violation, in addition to other remedies, may also institute any appropriate action including injunctive relief or proceedings to prevent or remove such violation (O.S. Title 19 §868.21).

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## SECTION II - DEFINITIONS

### 2.1 Usage.

1. For the purposes of these regulations, certain numbers, abbreviations, terms and words shall be used, interpreted and defined as set forth in this Section.
2. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense and words used in the plural include the singular.

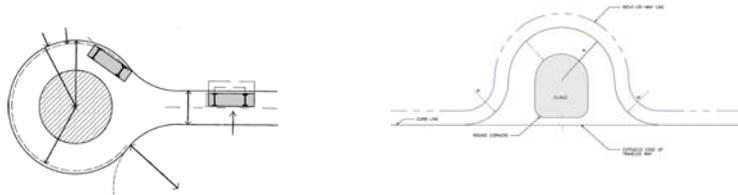
### 2.2 Words and Terms Defined.

1. **Adequate Public Facilities.** Facilities determined to be capable of supporting and servicing the physical area and designated intensity of the proposed subdivision as determined by the Planning Commission based upon specific levels of service.
2. **Alley.** A minor street used primarily for vehicular service access to the back or side of properties abutting on another street.
3. **Applicant.** The owner of land proposed to be subdivided or its representative who shall have express written authority to act on behalf of the owner. Consent shall be required from the legal owner of the property.
4. **Average Density.** The intensity of development on a property. Defined as housing units per acre of land. Also see Density.
5. **Block.** A tract of land bounded by streets, or by a combination of streets and public parks, cemeteries, railroad rights-of-way, shorelines of waterways, or boundary lines of municipalities.
6. **Bond.** A surety bond not to exceed 100 percent of the cost of construction of required improvements.
7. **Buffer.** A physical barrier or less intensive use placed between conflicting land uses to reduce impacts and smooth transitions between the conflicting uses: planting strips, walls, berms, building setbacks, or other design features to shield subdivision residents from effects of adjacent land uses.
8. **Building.** Any structure built for the support, shelter or enclosure of persons, animals, chattels or movable property of any kind.
9. **Building and Zoning Inspector.** The person designated by the County Engineer to enforce the zoning regulations and building codes.
10. **Central Water System.** A private water company formed to serve new subdivisions in an outlying area. It includes water treatment and distribution facilities.
11. **Central Sewerage System.** A community sewage system including collection and treatment facilities serving more than one (1) lot in a subdivision
12. **Cluster Development** - A development pattern in which the uses are grouped or bunched together through a density transfer to provide for community green or open space, shared parking and access, or other amenities. Gross density is used to compute development.
13. **Conservation Subdivision Design.** Developments that are generally defined as the clustering of homes or developments to protect environmentally sensitive areas from encroachment. The philosophy behind conservation subdivision design is sustainable growth. Conservation subdivision design incorporates a land ethic of common space including human, animal, and plant communities. Gross density is used to compute development.

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14. **Construction Plans.** Detailed reproducible plans and documents, prepared by or under the direct supervision with the signature, seal, and date of the licensed Professional Engineer licensed to practice in the in the State of Oklahoma.
15. **County Commissioners.** The Board of County Commissioners for Oklahoma County.
16. **County Engineer.** The Oklahoma County Engineer responsible for the administration and enforcement of these regulations.
17. **Covenant.** A private legal restriction on the use of land contained in the deed or otherwise formally recorded.
18. **Cul-de-Sac.** A local street with only one outlet that terminates in a vehicular turnaround and having an appropriate radius for the safe and convenient reversal of traffic movement.



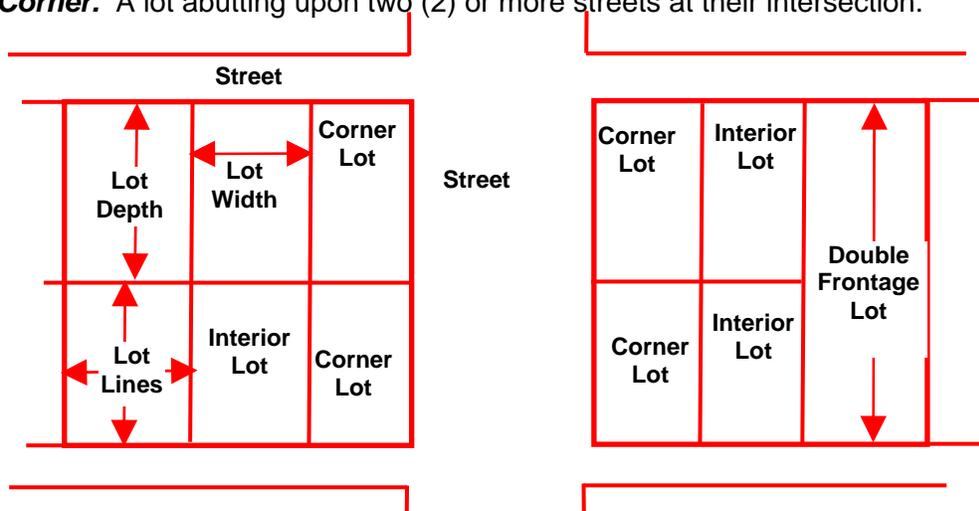
19. **Culvert.** A transverse drain that channels under a bridge, street, or driveway. Also referred to as a tinhorn.
20. **Dead-End Road or Street** – That portion of a street which initially has only one opening or access to another public street, but which may be extended at a later date.
21. **DEQ.** Oklahoma Department of Environmental Quality.
22. **Dedication.** Grant of an interest of property for public use.
23. **Density.** Density is defined as the amount or intensity of residential development permitted on a given parcel of land. It is measured in dwelling units per acre - the larger the number of units permitted per acre, the higher the density (typically smaller lot sizes); the fewer units permitted, the lower the density (typically larger lot sizes). The average number of housing units per acre of land.
24. **Deed.** A document under seal that states conveyance of title to real property.
25. **Develop.** To make a development; also to do any grading or filling of land, whether undeveloped or already subdivided, so as to change the drainage or the flow of water, or to do any work upon the land that is capable of serving as a subdivision or development of building sites in the future.
26. **Developer.** Any individual, subdivider, firm, association, syndicate, partnership, corporation, trust or any other legal entity commencing proceedings under these regulations to effect a subdivision of land hereunder for himself or for another.
27. **Dwelling.** Any building, or portion thereof, which is designed for use for residential purposes, but not including travel trailers.
28. **Dwelling, Multi-family.** A dwelling having more than two (2) dwelling units.
29. **Dwelling, Single-family.** A dwelling used or designed exclusively for one (1) dwelling unit.
30. **Dwelling, Two-family.** A dwelling having two (2) dwelling units.
31. **Dwelling Unit.** A single unit providing complete, independent living facilities for a family including permanent provisions for living, sleeping, eating, cooking, and sanitation
32. **Easement.** A grant by the property owner of the use of a strip of land by the public, a corporation or other persons, for specified purposes.

33. **Egress.** A place or means of exit.
34. **Escrow.** A deposit of cash with the County or escrow agent to secure the promise to construct required improvements and public facilities.
35. **FEMA.** Federal Emergency Management Agency.
36. **Final Plat.** A map of a subdivision to be recorded after approval by the Planning Commission and the Board of County Commissioners and any accompanying material as described in these regulations.
37. **Flood, 100-year.** The temporary inundation of normally dry land areas by a flood that is likely to occur once every 100 years (i.e., that has a one percent (1%) chance of occurring each year, although the flood may occur in any year.
38. **Floodplain.** Any land area susceptible to be inundated by water from the base flood. The term refers to that area designated as subject to flooding from the base flood (100-year flood) on the FEMA floodplain maps.
39. **Floodway.** The river channel plus any adjacent floodplain areas which are needed to carry the waters of the Base Flood without an increase in the flood height.
40. **Floor/Area Ratio.** The ratio of floor area permitted on a lot.
41. **Frontage.** That side of a lot abutting on a street or way and ordinarily regarded as the front of the lot; but it shall not be considered as the ordinary side of a corner lot.
42. **General Plat.** A sketch or informal plan prepared prior to the preparation of the Preliminary Plat describing the proposed design of the subdivision.
43. **Grade.** The amount of rise or descent of a sloping land surface, usually measured as a percent where the numbered percent represents the amount of vertical rise or fall, in feet, for every 100 feet horizontally. For example, a one foot vertical rise over one hundred horizontal feet represents a one percent slope.
44. **Green Space / Open Space.** Any parcel or area of land or water set aside, dedicated, designated, or reserved for public or private use or enjoyment.
45. **Group Quarters.** A facility that houses groups of unrelated persons not living in households (U.S. Census definition). Examples of group quarters includes institutions, dormitories, shelters, military quarters, assisted living facilities, dormitory or residence hall, Fraternity or Sorority house, maternity home boarding, rooming or lodging house.
46. **Highway, Limited Access.** A freeway or expressway providing for through traffic. Owners or occupants of abutting property on lands and other persons have no legal right to access, except at such points and in such manner as may be determined by the public authority having jurisdiction over the highway.
47. **Homeowners' Association.** An association or organization, whether or not incorporated, which operates under and pursuant to recorded covenants or deed restrictions, through which each owner of a portion of a subdivision - - be it lot, parcel site, unit plot or any other interest - - is automatically a member as a condition of ownership.
48. **Improvements.** Any drainage ditch, drainage facility, roadway, parkway, sidewalk, pedestrian way, landscaping, off-street parking area, lot improvement or other facility normally associated with development of land.
49. **Individual Sewage Disposal System.** A septic tank, seepage tile sewage disposal system, or any other sewage treatment device approved by the appropriate authority.
50. **Ingress.** A place or means of entry.

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51. **Intensity.** The degree to which land is used, referring to levels of concentration or activity in uses, expressed in lot coverage, dwelling units per acre or floor/area ratio.
52. **Landlocked.** A lot, tract or parcel of land surrounded or bounded on all sides by other lots, tract or parcels and lacking frontage or access to an approved street.
53. **Landscaping.** The planting, including replanting in case of death, disease, disfigurement or dismemberment, of live trees, shrubs and ground cover which, at the time of planting, are healthy, vigorous, and free of diseases, and of a species that is able to thrive in the environment and soil type in which it is planted, and maintenance thereof sufficient to sustain plant life, including an underground irrigation system with a useful life of not less than 10 years. Landscaping also includes hardscape and artificial surfaces when interspersed with shrubs and/or trees.
54. **Letter of Credit.** A written statement from a bank or loan company, written against the good standing of a developer, guaranteeing necessary funds, the amount to equal 100% a professional engineer's estimated cost for subdivision improvements, to complete such improvements should the developer fail to complete them within the time frame and conditions as specified in these regulations.
55. **Lot.** A measured parcel of land having fixed boundaries and designated on a plat or by a metes and bounds description and of at least sufficient size to meet minimum County use regulations and development standards.
56. **Lot Corner.** A lot abutting upon two (2) or more streets at their intersection.



57. **Lot Split.** The division of land into two (2) lots.
58. **Master Plan (County).** The formal long-range (10-30 year) policy document of the County that states community goals, objectives, policies, development, and conservation priorities and implementation programs; an illustration of the County's long-range vision for future growth and development. The Master Plan is the framework for the Land Use Plan Map. The Master Plan, along with the Land Use Plan Map, should be used as a guide for decisions regarding land use and development.
59. **Off-Site.** Any premises not located within the area of the property to be divided, whether or not in the common ownership of the applicant for subdivision approval.
60. **Pedestrian Facilities.** "Pedestrian facilities" is an all-inclusive term identifying non-vehicular travel routes. These include such routes as: sidewalks and walkways, street corners and intersections, paths and trails, and street and driveway crossings.

61. **Planned Unit Development (PUD).** An area of land, in which a variety of housing types and/or related commercial and industrial facilities are accommodated in a pre-planned environment under more flexible standards, such as lot size and setbacks, than those restrictions that would normally apply under these Regulations. The procedure for approval of such development contains requirements in addition to those of the standard subdivision.
62. **Planning Commission.** The County's Planning Commission is a seven member board established in accordance with state law. Members are appointed by the County Commissioners for a term of six (6) years each. There are two members for each of the three Commissioner districts. Their duties include, but are not limited to, creating and adopting a master plan, reviewing development plans and making amendments to the zoning and subdivision regulations as deemed necessary.
63. **Preliminary Plat.** The preliminary drawing or drawings, described in these regulations, indicating the proposed manner or layout of the subdivision and various other requirements, to be submitted to the Planning Commission for approval.
64. **Private Street or Roadway.** See Street or Roadway, Private.
65. **Professional Engineer.** Registered, professional engineer licensed to practice in the State of Oklahoma.
66. **Professional Surveyor.** Registered, professional surveyor licensed to practice in the State of Oklahoma.
67. **Public Improvement.** Any drainage ditch, roadway, parkway, sidewalk, pedestrian way, tree, lawn, off-street parking area, lot improvement, or other facility for which the County may ultimately assume the responsibility for maintenance and operation, or which may effect an improvement for which local government responsibility is established.
68. **Regulations.** Regulations are official rules, standards, or other requirements adopted by the County to implement the County Master Plan. In this document, "these regulations" shall be interpreted to mean the Oklahoma County Subdivision regulations.
69. **Registered Land Surveyor.** A land surveyor properly licensed and registered in Oklahoma.
70. **Resubdivision.** Any change in a map of an approved or recorded subdivision plat that affects any street layout on the map or area reserved thereon for public use or any lot line, or that affects any map or plan legally recorded prior to the adoption of any regulations controlling subdivisions.
71. **Right-of-way.** A strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, shade trees, or for any other special use. The usage of the term "right-of-way" for platting purposes shall mean that every right-of-way hereafter established and shown on a final plat is to be separate and distinct from the lots or parcels adjoining such right-of-way and not included within the dimensions of areas of such lots or parcels.
72. **Road Right-of-Way Width.** The distance between property lines measured at right angles to the center line of the street.
73. **Setback.** The required distance between every structure and the lot line on the lot on which it is located.
74. **Sight-Proof Screening.** Decorative fencing, evergreen vegetation or landscaped earth berms maintained for the purpose of concealing from view the property or structure behind such screening.

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75. **Soil Test.** Field test conducted by the ODEQ and used in judging the suitability of soil for on-site, subsurface sewage disposal and seepage system.
76. **Street, Approved.** A street which has been approved by the County Commissioners.
77. **Street, Arterial.** A continuous street system which provides for the safe movement of through traffic on at-grade intersection facilities by application of good geometric design and traffic control measures. The system should not penetrate identifiable neighborhoods and provides a minimum of direct access to abutting property.
78. **Street, Collector.** Streets which provide access and service to land, circulate traffic between land uses and collect and distribute traffic between the arterial street system and the local streets.
79. **Street, Local.** Streets which penetrate neighborhoods to provide the highest level of access to residents, business, or other abutting property. Service to through movement is deliberately discouraged.
80. **Street or Roadway, Private.** Property in either platted or an unplatted area, which has been approved under the terms of these Regulations, open for private and public vehicular traffic, but not owned or maintained by Oklahoma County.
81. **Street, Public.** A street which has been approved and accepted by the County Commissioners and maintained by Oklahoma County.
82. **Structure.** Anything constructed or erected, the use of which requires permanent location on the ground or which is attached to something having a permanent location on the ground. This includes, but is not limited to, main and accessory buildings, advertising signs, billboards, poster panels and fences.
83. **Subdivider.** Any person who (1) having an interest in land, causes it, directly or indirectly, to be divided into a subdivision or who (2) directly or indirectly, sells, leases, or develops, or offers to sell, lease or develop, or advertises to sell, lease, or develop, any interest, lot, parcel site, unit or plat in a subdivision, or, who (3) engages directly or through an agent in the business of selling, leasing, developing, or offering for sale, lease, or development a subdivision or any interest, lot, parcel, site, unit or plat in a subdivision, and who (4) is directly or indirectly controlled by, or under direct or indirect common control with any of the foregoing.
84. **Subdivision.** Division of land into three (3) or more tracts or lots, dedication of a road highway or street through a tract of land, regardless of area, Re-subdivision of land hereto divided or platted into lots or parcels or rezoning of a parcel or tract to a greater density or more intensive use.
85. **Subdivision, Non-Residential.** A subdivision intended for development other than residential, such as commercial, office, or industrial.
86. **Subdivision, Phases or Sections.** A subdivision where it is the intent of the land owner to develop a tract in two or more sections. Each phase within a phased subdivision is so planned and so related to existing surroundings and available or existing infrastructure and facilities and services that failure to proceed to the subsequent phases will not have an adverse impact on the Subdivision or its surroundings at any phase of the development. Any proposed phasing of the Subdivision must consider present and future traffic and development issues.
87. **Tin horn. Also see Culvert.** A corrugated, galvanized metal culvert installed alongside roadways to let floodwater pass through.
88. **Zoning District.** A section of the Unincorporated County designated in the Zoning Regulations text and usually delineated on the zoning map in which requirements for the use of land and building and development standards are prescribed.

## **SECTION III - APPLICATION PROCEDURES AND APPROVAL PROCESS**

### **3.1 Purpose**

The purpose of this section is to establish the procedure for review and approval of Lot Splits and Subdivisions. The procedure is intended to provide orderly and expeditious processing of such applications.

### **3.2 Notice Required.**

Notice of the hearings before the Planning Commission and Board of County Commissioners shall be given at least twenty (20) days prior to such hearing by mailing written notice to all owners of property within a three-hundred (300) foot radius of the exterior boundary of the subject property, said radius to be extended by increments of one-hundred (100) linear feet until the list of property owners includes not less than fifteen (15) individual property owners of separate parcels or until a maximum radius of 1,000 feet has been reached. The list must be a certified abstract list that includes current addresses for all property owners.

### **3.3 Lot Split Requirements and Procedure**

#### **1. Lot Split Required.**

A Lot Split is required in Unincorporated Oklahoma County when the Lot Split creates the division of land into two (2) lots.

- a) There is a maximum of one (1) Lot Split allowed per owner per property. All newly created lots must conform to the requirements of the zoning district in which it is located as per the Oklahoma County Zoning Code including area regulations, setbacks, and coverage.
- b) Lot Splits are not considered an appropriate method of creating a subdivision.

#### **2. Document Requirements.**

The following is a list of documents required for Lot Split submission:

- a) Pin survey of entire property, before Lot Split, and showing the Lot Split.
- b) Legal description of entire property before Lot Split.
- c) Legal description of lots formed by Lot Split.
- d) Filed warranty deed of entire property before Lot Split.
- e) Signed, notarized warranty deeds ready to be filed for new lots formed by Lot Split.
- f) Required fee.

#### **3. Application for Lot Split.**

Applications may be obtained from the County Planning Department.

- a) A pin survey must be submitted with the application. The pin survey shall contain the legal descriptions of the property before and after the proposed Lot Split.

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- b) A filed copy of the original warranty deed of the property prior to the proposed Lot Split must be submitted with the application.
- c) Signed, notarized warranty deeds with the new legal descriptions created by the Lot Split must be submitted with the application.
- d) Upon receipt of a completed application, all required documentation, and fees, the application for the proposed Lot Split shall be submitted to the County Engineer for review and approval. If approved, the applicant shall then take the new deeds to be filed with the Oklahoma County Registrar of Deeds. A filed copy of each new deed shall be submitted to the Planning Department.

### **3.4 Application of Subdivision Regulations.**

**Criteria for Subdivision.** For all property in the Unincorporated Oklahoma County, any proposal involving any of the following shall be subject to subdivision procedures as required herein:

1. ***Division of land into three (3) or more tracts or lots.***
2. ***Construction of a road or street through a tract of land, regardless of area.***
3. ***Re-subdivision of land hereto divided or platted into lots or parcels.***
4. ***Rezoning a parcel or tract of land.***

### **3.5 Subdivision Procedures and Requirements.**

#### ***1. Step 1 Procedure for Subdivision - Pre-Application Conference.***

##### ***a) Pre-Application Conference.***

Prior to preparing a General Plat, it is highly recommended that the developer schedule an informal meeting with the Planning and Engineering staff to discuss subdivision application procedures and requirements including, but not limited to, erosion control, drainage, utilities, paving design standards, driveway access locations, and road maintenance.

##### ***b) Pre-Application Deadline.***

The application may combine a pre-application conference with the General Plat. All subdivision applications and documents must be submitted forty-five (45) days prior to the scheduled Planning Commission meeting.

#### ***2. Step 2 Procedure and Requirements for Subdivision - General Plat.***

##### ***a) General Plat Application Deadline.***

The application may combine a pre-application conference with the General Plat. All subdivision applications and documents must be submitted forty-five (45) days prior to the scheduled Planning Commission meeting.

**b) General Plat Submittal Requirements.**

The following is a list of required documents for General Plat submittal.

- i. Property Description.** A complete and accurate legal description of the property prepared by a licensed surveyor or engineer must be submitted.
- ii. Site Plan.** Ten (10) copies of the map must be submitted with the application; Maps must be on 24" x 36" showing:
  - a. General location of property in reference to the closest section line road.
  - b. Existing structures.
  - c. North arrow.
  - d. Scale (1" = 200' minimum).
  - e. Outline of area to be subdivided.
  - f. Proposed lot lines.
  - g. For proposed lots, any part of which falls into a designated floodplain area, the floodplain area of each lot shall be indicated on the plat.
  - h. Proposed streets – designate private or public.
  - i. Natural features such as ponds, creeks, floodplain, and streams.
- iii. Electronic Copy.** An electronic copy of the plat must be submitted in pdf or jpg format.
- iv. Statement.** Written statement describing proposed use, any amenities, restrictive covenants or other relevant information.
- v. Property Owners List.** Certified abstract list as per Section 3.2
- vi. Deed.** Filed Warranty Deed.
- vii. Application and Fee.** Completed application and fee.

**c) Planning Commission Review.**

Upon receipt of the completed application and receipt of all required documents, the General Plat application will go before the Planning Commission for review at its public meeting. If the Planning Commission approves the General Plat, the applicant may then begin the Preliminary Plat phase. The Preliminary Plat must be applied for within one (1) year from the date of General Plat approval by the Planning Commission.

**3. Step 3 Procedure and Requirements for Subdivision - Preliminary Plat.**

**a) Preliminary Plat Status.**

The Preliminary Plat must be applied for within one (1) year from the date of General Plat approval by the Planning Commission or a new General Plat must be filed.

**b) Preliminary Plat Application Deadline.**

The Preliminary Plat application, fee, and all required documents must be submitted at least 45 days prior to the scheduled Planning Commission meeting.

**c) Preliminary Plat Submittal Requirements.**

Ten (10) copies of the Preliminary Plat must be submitted with the application. Meeting the following requirements (see also Appendix A):

- i. Legal Description.** Complete and accurate legal description of the property prepared by a licensed surveyor or engineer.
- ii. Site Plan.** Site Plan drawn to scale (1" = 200" minimum) on 24" x 36" paper showing:
  - a. General location of property in reference to the closest Section Line Roads, county/city boundaries, any adjoining subdivisions and dedicated streets.
  - b. Roads with complete paving and profile plans, including road widening plans, stamped by a state licensed P.E. (must use County design standards, see Appendix C and D).
  - c. Ingress/egress from Section Line roads, with road widening plans.
  - d. Proposed sidewalks, trails, or bike paths.
  - e. Individual lots with dimensions.
  - f. Setbacks – show ALL setback requirements (front, side, and rear yard).
  - g. Easements – show ALL easements, proposed and existing.
  - h. Existing structures – including oil wells, oil tank batteries, etc.
  - i. Existing tree masses, water features such as ponds, creeks, etc.
  - j. Known archeological, environmental, and geological sites.
  - k. Floodplain boundaries if applicable with FEMA FIRM number and effective date.
  - l. Limits of flood hazard areas as defined by the appropriate FEMA FIRM panel (with numbers and effective date) and the proposed finished floor elevation of all proposed buildings within these flood hazard areas on each lot.
  - m. Finished Floor Elevation if applicable.
  - n. Drainage calculations and plans – including proposed detention ponds, ditches, channels, etc., using two-foot contour lines.
  - o. Driveway culvert (tinhorn) for private drives including locations and size by lot or by area.
  - p. Radii (see Section 8.2 for standards), point of tangency, points of intersection, central angles for all curvilinear streets and radii for all rounded corners.
  - q. Erosion/Sediment control plans.
  - r. Restrictive Covenants if applicable.
  - s. Signage Plans.
  - t. Landscaping Plans.
  - u. Fencing/Screening Plans.
  - v. North Arrow.
  - w. Filed Notice of Intent (NOI) for storm water discharges under a National Pollutant Discharge Elimination System (NPDES) General Permit form from the Oklahoma Department of Environmental Quality (ODEQ).

- x. Utilities that will serve the area.
- y. Emergency services for the area.
- i. **Electronic Copy.** An electronic copy of the plat must be submitted in AutoCAD format as well as a pdf or jpg format.
  - a. It is preferred that drawings be provided in (dwg) file format compatible with AutoCAD 2004 or newer. Alternatively, files may be submitted in one of the following digital file formats, listed in order of preference: dxf or shp file format
  - b. All digital data shall be presented in true scale (1:1 ratio).
  - c. Layer names must be intuitive and be fully annotated.
  - d. Drawing file shall include at least two (2) points referenced to Oklahoma North State plane projection NAD83 (feet coordinates) or two (2) property line descriptions with longitude and latitude lines.
  - e. A minimum of one (1) benchmark point per subdivision shall be identified. The benchmark must have an x, y, and z coordinate in Oklahoma North State plane projection NAD83 (feet coordinates). The x, y and z coordinate for the benchmark will be first order. A permanent benchmark shall be established, shown, and identified on the plat or plans.
  - f. Developers may utilize Global Positioning System (GPS) technology to acquire base points for a development. GPS points that are submitted must be Oklahoma North State plane projection NAD83 (survey feet).
  - g. The drawing shall be geo-rectified based upon the system used to acquire base control points, as indicated in paragraph d and paragraph e above.
  - h. The exterior boundary of the subject area must close (the first and last point must have the same XY value).
- ii. **Property Owners List.** Certified abstract list as per Section 3.
- iii. **Application and Fee.** Completed application and fee submitted.
- d) **Planning Commission Review.**

Upon receipt of the completed application and of all required documents, the Preliminary Plat application will go before the Planning Commission for review at a public meeting. If the Planning Commission approves the Preliminary Plat, the applicant must submit the Erosion Control Bond before any construction commences. The applicant may then begin the Final Plat phase.
- e) **Planning Commission Approval.**

See Section 4.1 Administration.
- f) **Erosion Control Measures.**

All erosion control measures must be correctly installed according to the approved, submitted erosion control plans before any grading or dirt work commences.

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**g) *Drainage Improvements.***

All drainage improvements must be completed before or in conjunction with any road construction.

**4. *Step 4 Procedure and Requirements for Subdivision - Final Plat.***

**a) *Required Changes.***

All required changes to the Preliminary Plat should be completed by the Final Plat phase.

**b) *Licensed Engineer or Surveyor Required.***

The Final Plat must be prepared by a Licensed Engineer and/or Licensed Surveyor.

**c) *Final Plat Submittal Requirements.***

The following is a list of requirements for the Final Plat application:

- i. *Prints and Mylar.*** Three (3) blue-line prints and two (2) Mylar copies of the approved Final Plat using a scale of 1" = 200' or less, with a one-inch top, bottom and right margin; three-inch left margin (24" x 36" sheet size). An index sheet must be used if two or more sheets are required. In addition to those required at the Preliminary Plat phase, these items must be shown on the Final Plat:
  - a. Section corners, survey monuments with descriptions and references - showing distance and direction.
  - b. Private restrictions and trusteeships and the period of existence.
  - c. If any common lots, private drainage easements, or other private areas are established on the plat, a note shall be placed on the plat indicating such and that all common or private areas are not maintained by the public but are maintained by a homeowners' association.
  - d. Property dedicated for public use.
  - e. Driveway culvert (tinhorn) for private drives including locations and size by lot or by area.
  - f. Owner's certificate.
  - g. Surveyor's certificate.
  - h. Certificate of Bonded Abstractor.
  - i. Certificate of Release of Mortgage for any portion dedicated to the public.
  - j. County Planning Commission Approval Certificate.
  - k. County Treasurers Certificate
  - l. Engineer's Certificate.
  - m. Oklahoma Department of Environmental Quality (ODEQ) Certificate.
  - n. County Commissioner's Certificate showing approval of the plat and text as follows: "the roads established on this plat are public and will be maintained by the County" or "the roads established on this plat are private and will not be maintained by the County" (located under the signature block using whichever text is applicable).

- o. Subdivision Name.
  - p. County and State Name.
  - q. Location including Section, Township and Range.
  - ii. **Electronic Copy.** An electronic copy of the plat must be submitted in a format required by the County Engineer.
    - a. It is preferred that drawings be provided in (dwg) file format compatible with AutoCAD 2004 or newer. Alternatively, files may be submitted in one of the following digital file formats, listed in order of preference: dxf or shp
    - b. All digital data shall be presented in true scale (1:1 ratio).
    - c. Layer names must be intuitive and be fully annotated.
    - d. Drawing file shall include at least two (2) points referenced to Oklahoma North State plane projection NAD83 (feet coordinates) or two (2) property line descriptions with longitude and latitude lines.
    - e. A minimum of one (1) benchmark point per subdivision shall be identified. The benchmark must have an x, y, and z coordinate in Oklahoma North State plane projection NAD83 (feet coordinates). The x, y and z coordinate for the benchmark will be first order.
    - f. Developers may utilize Global Positioning System (GPS) technology to acquire base points for a development. GPS points that are submitted must be Oklahoma North State plane projection NAD83 (survey feet).
    - g. The drawing shall be geo-rectified based upon the system used to acquire base control points, as indicated in paragraph d and paragraph c above.
  - iii. **Assurance for Completion.** Road/Street maintenance bond or other assurance of completion must be submitted in accordance with Section V of these regulations.
  - iv. **Signed Final Plat Mylar.** The Mylar(s) must have all necessary seals, certifications and signatures before the scheduled Planning Commission meeting and be turned in to staff at least 24 hours before the meeting.
  - v. **Property Owners List.** Certified abstract list as per Section 3.
  - vi. **Application and Fee.** A completed application and fee must be submitted. All fees are non-refundable.
- d) **Planning Commission Approval.**  
Upon approval by the Planning Commission, the Final Plat and the bonds will be submitted to the County Commissioners for approval. After County Commissioner approval, the Final Plat must be filed with the Registrar of Deeds within sixty days of County Commission's approval.

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**e) *Acceptance of Dedications.***

The Oklahoma Board of County Commissioners may accept the dedications of public improvements within a final plat in accordance with the following:

- i. *Surety Bond.*** Submittal of a surety bond or other assurance as provided in accordance with Section V of these Subdivision Regulations;
- ii. *Improvements.*** Installation of required improvements in accordance with Article 4.
- iii. *Planning Commission Requirements.*** The Final Plat must reflect all Planning Commission requirements.

**f) *Final Plat Filed.***

The Final Plat must be filed with the Registrar of Deeds within 60 days of approval by the County Commissioners. Failure to file within 60 days will render the Final Plat null and void.

**g) *Filed Copy.***

One Mylar of the approved, signed and filed Final Plat must be submitted to the Planning Department as a file copy.

**h) *Public Improvements.***

Construction of the subdivision must commence within one (1) year of Final Plat approval by the County Commissioners. Failure to begin construction within one (1) year of approval will render the Final Plat null and void, unless an extension of the approval has been granted by the Planning Commission. See Section 5.1 through Section 5.6.

**i) *Building Permits.***

See Section 5.6 Issuance of Building Permits and Certificates of Occupancy concerning building permits and occupancy requirements for lots in new subdivisions and new development.

### **3.6 Phased or Sectionalized Subdivision Plats.**

#### **1. *Phasing or Sectionalizing of Preliminary Plat Allowed.***

Prior to granting final approval of a subdivision plat, the Planning Commission may permit the plat to be divided into two or more sections (or phases) and shall impose such conditions upon the filing of the sections as it may deem necessary to assure the orderly development of the plat, including but not limited to, limiting grading in each section only after final plat approval of each section by the Planning Commission and receipt of all required bonds. The Planning Commission may require that the subdivision and erosion control bonds be in such amount as is commensurate with the section or sections of the plat to be filed. A preliminary plat of the entire subdivision (before sectionalizing) must be submitted as required in Section 3.3 Step Three – Preliminary Plat Submission Requirements. The approved final plat, for each section, must be filed subject to the requirements in Section 3.3, Step Four – Final Plat Submission Requirements.

#### **2. *Sections Must be in Conformance.***

Each subsequent section or final plat of any subdivision must be in conformance to the approved preliminary plat, otherwise, a revised preliminary plat may be required to be submitted and approved following the outlined process.

### **3.7 Planned Unit Development Requirements.**

#### **1. *Purpose and Intent.***

The purpose of the Planned Unit Development (PUD) District is to promote efficient use of land, allow flexible application of development controls, allow a variety of density and land use application and configuration, protect surrounding property, and protect the natural features and scenic beauty of the land. This shall be accomplished by permitting a wider range of densities and uses to be developed in accordance with a Master Plan which may allow for clustering of lots, a variety of density allowance, and the limiting or control of land use, configuration, or construction in various areas of the site.

#### **2. *Procedure.***

A Planned Unit Development District shall constitute a zoning amendment and follow the procedures outlined by the Oklahoma County Zoning Regulations. Development within the PUD zoning district shall be controlled by the PUD Master Plan and its Terms and Conditions submitted as part of the application and included with the PUD rezoning approval. A subdivision application may be submitted to be reviewed concurrently with the PUD rezoning application or subsequent to the approval of the PUD.

### **3. Subdivision Eligibility.**

The PUD district is designed to allow an applicant to submit a proposal for consideration, for any uses or any mixture of uses that are consistent with the Goals and Objectives of the Oklahoma County Master Plan and the surrounding area, and to allow the County Planning Commission to approve any proposal which it determines to be in the best interest of the public health, safety, and welfare, along with any conditions or requirements or limitations thereon which the Planning Commission deems advisable. No subdivision application submitted to be reviewed concurrently with a PUD rezoning application shall be eligible for approval unless the following minimum conditions are met:

#### **a) Minimum Percentage of Open Space.**

At least fifteen (15) percent of a PUD must be set aside for public open space use. No more than twenty-five (25) percent of floodplain, as shown on the current FEMA FIRMs may be used as open or public use space. Any development in the floodplain area, as defined in the Oklahoma County Floodplain Regulations, will be in compliance with said regulations. Existing ponds shall not be used when computing open space requirements.

#### **b) Access to Open Space.**

Access to open spaces must be designed to serve the entire PUD community. Adequate access from all parts of the PUD must be provided through the incorporation of pedestrian ways or trails.

#### **c) Drainage, Floodplain Management, Road Construction, and Building Codes.**

County drainage standards, floodplain regulations and road construction requirements shall not be altered or reduced in the design of a PUD. All roads, public or private in a PUD shall be built to meet County applicable roadway standards.

### **4. General, Preliminary, and Final Plats.**

Upon approval of the PUD Design Statement and Master Development Plan, the developer shall prepare a General, Preliminary, and Final Plat for the entire development area, in accordance with Section III, Subsection 3.3 of these Regulations. Where a General Plat and PUD application have been submitted together, they may be reviewed concurrently.

### **5. Status of Previously Approved PUD's.**

Any PUD project approved prior to the effective date of these Regulations shall continue to be governed by the approved PUD plan and agreements, terms, and conditions to which the approval may be subject and shall be designated PUD on the Official Zoning Map. Whenever any application is made to substantially modify an approved PUD, or to undertake a new development on part or all of the property, the application shall be made under the terms and procedures of the PUD district set forth in the Oklahoma County Zoning Regulations.

## **SECTION IV - ADMINISTRATION**

### **4.1 Expiration or Extension.**

Failure to comply with stated time periods of these Regulations shall result in the expiration of the application and associated Planning Commission approvals. Before expiration, the subdivider may provide a letter stating why these time periods cannot be met and requesting their extension. The subdivider is solely responsible for knowing expiration dates and meeting or extending them in accordance with these Regulations. The Planning Commission shall have no duty, obligation or responsibility to remind or notify subdividers of approaching expiration dates.

#### **1. *Plat Approval Process.***

Once a preliminary plat or final plat is officially submitted by the subdivider, the Planning Commission has a fixed time period for approval or denial. If it appears that the preliminary plat or final plat will not be approved for reasons that the subdivider believes he or she can remedy, a time extension may be requested. The Planning Commission has the right to extend the review process, with the subdivider's written consent, if questions arise and the plan or plat cannot be approved until information is gathered and the questions answered.

#### **2. *Preliminary Plat Approval.***

The approval of the Preliminary Plat by the Planning Commission shall be effective for a maximum of one (1) year from the date of its approval unless an extension of the approval has been granted by the Planning Commission.

##### **a) *Preliminary Plat Valid for One (1) Year.***

If the Final Plat is not submitted and accepted within one (1) year or the date of Planning Commission approval of the preliminary Plat, the Preliminary Plat approval shall expire and become void. A formal request for Preliminary Plat extension must be submitted prior to the one (1) year deadline date. Extensions maybe granted for a period of one (1) year and may not be granted more than two (2) times.

##### **b) *Phased Plats.***

Where only a portion of an approved Preliminary Plat (See Section 3.4 Phased or Sectionalized Subdivision Plats) is submitted for final approval, a Final Plat of the remaining area may be submitted at anytime within three (3) years of the date the Preliminary Plat was approved by the Planning Commission, if each subsequent Final Plat conforms substantially to the approved Preliminary Plat.

#### **3. *Voided Applications.***

An application shall become void and have no rights, standing, or status under these Regulations, upon expiration, withdrawal, or disapproval.

#### **4. Dismissal of Plats.**

All plats, Preliminary or Final, which have been continued by the applicant in excess of one (1) year from the date of original request for continuance, will be dismissed. Any further subdivision action on property of dismissed cases will require resubmittal and shall include any necessary required public hearings. The Planning Staff will notify the applicant of the affected plat thirty (30) days prior to the dismissal.

#### **4.2 Recording of Plat.**

No plat of any subdivision shall be recorded by the Oklahoma County Registrar of Deeds or have any validity until said plat has received a final approval in the manner prescribed in these Regulations.

#### **4.3 Fees.**

The Planning Commission shall establish a schedule of fees, charges, expenses, and collection procedures for administration of these Regulations. The schedule of fees shall be maintained in the office of the Planning Commission. Until all applicable fees, charges and expenses have been paid in full, no action shall be taken on any application. The subdivider shall be solely responsible for submittal of the plat and payment of fees. Fees are nonrefundable.

#### **4.4 Violations and Penalties.**

No building permit shall be issued for the construction of any building or structure located on a lot or plat subdivided or sold in violation of the provisions of these Regulations, nor shall the County have any obligation to issue certificates of occupancy to any parcel created in violation of these Regulations.

#### **4.5 Administration, Enforcement, and Interpretation.**

The owner of a subdivision may not transfer or sell any lot before the County Commissioners have granted subdivision approval to ensure that land is developed according to proper standards. Attempts to evade subdivision regulations such as transfer of land to co-tenants and lot splits are subject to penalties imposed by these Regulations.

## **SECTION V - ASSURANCE FOR CONSTRUCTION, MAINTENANCE OF SUBDIVISION ROADS, AND EROSION CONTROL**

### **5.1 Subdivision Agreements**

#### **1. *Completion of Roads and Erosion Control.***

Before the final subdivision plat is approved and signed by the Oklahoma County Planning Commission, all applicants shall be required to complete, in accordance with the Planning Commission's decision and to the satisfaction of the County Engineer, all street, drainage and other public improvements, specified in the final subdivision plat and as approved by the Planning Commission, and to dedicate those public improvements to the local government, unless otherwise specified, free and clear of all liens and encumbrances on the dedicated property and public improvements. All subdivisions will be required to submit Road Construction/Maintenance and Erosion Control security agreements with the County.

#### **2. *Subdivision Road/Erosion Control Agreement and Guarantee.***

##### **a) *Agreement.***

The Oklahoma County Board of County Commissioners in its sole discretion may waive the requirement that the applicant complete and dedicate all public improvements prior to approval of the final subdivision plat and, as an alternative, permit the applicant to enter into a Road Construction/Maintenance agreement and Erosion Control Agreement by which the subdivider covenants to complete all required street, drainage and erosion control improvements no later than one (1) year following the date on which the Planning Commission approves and signs the final subdivision plat. The applicant shall covenant to maintain each required street and drainage improvement for a period of two (2) years following the acceptance by the Board of County Commissioners of the completed street and drainage improvements, and also shall warrant that all required street and drainage will be free from defect for a period of two (2) years following the acceptance by the governing body of the dedication of the last completed road. The applicant shall covenant to install, maintain and complete all erosion control improvements, and also warrant the installation, maintenance, and completion of all erosion control improvements for a period of one (1) year. The erosion control security shall be due upon approval of the preliminary plat approval by the Planning Commission. The subdivision road and erosion control agreements shall contain such other terms and conditions agreed to by the applicant and the County Commissioners.

##### **b) *Security.***

Whenever the Board of County Commissioners permits an applicant to enter into a construction/maintenance agreement and an erosion control agreement, it shall require the applicant to provide a bond, letter of credit or cash escrow as security for the promises contained in the agreements.

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Security shall be in an amount equal to one hundred percent (100%) of the estimated cost of completion of the required improvements. A separate agreement must be submitted for the roads and erosion control. The following are usually acceptable forms of security:

- i. **Letter of Credit.** If the applicant posts a letter of credit as security for its promises contained in the subdivision agreements, the credit shall: 1) be irrevocable; 2) be for a term sufficient to cover the completion, maintenance and warranty periods in Section 5.1.2.a; and 3) require only that the government present the credit with a sight draft and an affidavit signed by the Oklahoma County District Attorney attesting to the County's right to draw funds under the credit.
- ii. **Cash Escrow.** If the applicant posts a cash escrow as security for its promises contained in the agreements, the escrow instructions shall provide: 1) that the subdivider will have no right to a return of any of the funds until the term of the subdivision security has been met and 2) that the escrow agent shall have a legal duty to deliver the funds to the County whenever the Oklahoma County District Attorney presents an affidavit to the agent attesting to the County's right to receive funds whether or not the subdivider protests that right.
- iii. **Bond.** If the applicant posts a bond as security for its promises contained in the agreements, the bond instructions shall provide: 1) that the subdivider will have no right to a return of any of the bond until the term of the subdivision security has been met and 2) that the bonding agent shall have a legal duty to deliver the funds to the County whenever the Oklahoma County District Attorney presents an affidavit to the agent attesting to the County's right to receive funds whether or not the subdivider protests that right.

### **5.2 Costs of Improvements**

All required improvements should be made by the developer, at its expense, without reimbursement by the local government.

### **5.3 Failure to Complete Improvement**

For subdivisions for which no subdivision improvement agreement has been executed and no security has been posted, if the improvements are not completed within the period specified by the Planning Commission for final plat approval, the sketch plat or preliminary plat approval shall be deemed to have expired. In those cases where a subdivision improvement agreement has been executed and security has been posted and required public improvements have not been installed within the terms of the agreement, the County may then: 1) declare the agreement to be in default and require that all the improvements be installed regardless of the extent of the building development at the time the agreement is declared to be in default; 2) obtain funds under the security and complete improvements itself or through a third party; and 3) exercise any other rights available under the law.

#### **5.4 Acceptance of Dedication Offers.**

Acceptance of formal offers of dedication of streets, public areas, easements, and parks shall be solely at the discretion of the County Commissioners. The approval of a subdivision plan by the Planning Commission, whether sketch, preliminary or final, shall not be deemed to constitute or imply the acceptance by the County of any street, easement, or public area shown on the plat. The County Commissioners shall require the plat to be endorsed with appropriate notes to the road maintenance decision.

#### **5.5 Inspection of Improvements.**

##### **1. General Procedure.**

The Planning Commission shall provide for inspection of the roads, drainage, and erosion control improvements during construction and ensure their satisfactory completion. If the County Engineer finds, upon inspection, that any one or more of the required improvements has not been constructed in accordance with the County's construction standards and specifications, the applicant shall be responsible for properly completing the improvements.

##### **2. As-Built Drawings.**

As-built drawings from the developer's engineer for all paving and drainage improvements for subdivisions and other new development shall be required. As-built drawings must be submitted within sixty (60) days of paving and drainage completion.

#### **5.6 Issuance of Building Permits and Certificates of Occupancy.**

##### **1. Building Permit.**

**Bonds and Improvement Agreement Required.** When road and erosion control improvement agreements and securities have been required for a subdivision, no building permit for any building in the subdivision shall be issued prior to the receipt by the County of all required bonds and agreements and the final plat has been filed with the County.

##### **2. Certificate of Occupancy.**

**Inspection and Acceptance Required.** No Certificate of Occupancy shall be issued until all roads and drainage improvements, all public improvements, and all erosion control measures have been completed, built to County standards, inspected by County staff, and accepted by the Board of County Commissioners.

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## SECTION VI - REQUIREMENTS FOR IMPROVEMENTS AND DESIGN

### **6.1 General Improvements.**

#### **1. *Conformance to Applicable Rules and Regulations.***

In addition to the requirements established in these regulations, all subdivision plats shall comply with the following laws, rules, and regulations:

- a) All applicable statutory provision.
- b) All requirements of the County Zoning Regulations, building and housing codes, floodplain regulations, and all other applicable laws of the appropriate jurisdictions.
- c) The Official Zoning Map.
- d) The special requirements of these Regulations and any rules of the Health Department and/or appropriate state or substate agencies.
- e) The rules of the Oklahoma Department of Transportation if the subdivision or any lot contained therein abuts a state highway or connecting street.
- f) The standards and regulations adopted by the County Engineer and all boards, commissions, agencies, and officials of Oklahoma County government.
- g) All general improvements shall conform to the County's Master Plan.

#### **2. *Conformance to Guidelines.***

Plat approval may be withheld if a subdivision is not in conformity with the above laws, regulations, guidelines, and policies as well as the purposes of these regulations.

### **6.2 Public Facilities and Services.**

#### **1. *Conformance to County Master Plan.***

Proposed public improvements shall conform to and be properly related to Oklahoma County's Master Plan. The applicant for a preliminary plat must, at the request of the Planning Commission or County Engineer, submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on, and use of, public facilities and services by possible uses of said subdivision.

#### **2. *Adequate Public Facilities.***

No preliminary plat shall be approved unless the Planning Commission determines that public facilities will be adequate to support and service the area of the proposed subdivision. The applicant shall, at the request of the Planning Commission, submit sufficient information and data on the proposed subdivision to demonstrate the expected impact on, and use of, public facilities by possible uses of said subdivision. Public facilities and services to

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be examined for adequacy will include roads and public transportation facilities, sewerage, and water service.

**a) *Wastewater.***

All habitable buildings and buildable lots shall be served by an approved means of wastewater collection and treatment.

**b) *Stormwater Management.***

Drainage improvements shall accommodate potential runoff from the entire upstream drainage area and shall be designed to prevent increases in downstream flooding. Oklahoma County may require the use of control methods such as erosion control, retention or detention, and/or the construction of offsite improvements to mitigate the impacts of the proposed developments.

**c) *Roads.***

Proposed roads shall provide a safe, convenient, and functional system for vehicular, pedestrian, and bicycle circulation; shall be properly related to the County Master Plan; and shall be appropriate for the particular traffic characteristics of each proposed development.

**3. *Extension Policies.***

All public improvements and required easements shall be extended through the parcel on which new development is proposed. Streets, water lines, wastewater systems, drainage facilities, electric lines, and telecommunications lines shall be constructed through new development to promote the logical extension of public infrastructure. Oklahoma County may require the applicant of a subdivision to extend offsite improvements to reach the subdivision or oversize required public facilities to serve anticipated future development as a condition of plat approval.

### **6.3 Self-Imposed Restrictions.**

If the owner places restrictions on any of the land contained in the subdivision greater than those required by the Zoning Regulations or these regulations, such restrictions or reference to those restrictions shall be required to be indicated on the subdivision plat. Where restrictive covenants are less restrictive than those required by the Zoning Regulations, the more restrictive regulation shall prevail. All restrictive covenants shall be filed with the Registrar of Deeds.

### **6.4 Character of the Land.**

Land that the Planning Commission finds to be unsuitable for subdivision or development due to flooding, improper drainage, steep slopes, rock formations, adverse earth formations or topography, utility easements, or other features that will reasonably be harmful to the safety, health, and general welfare of the present or future inhabitants of the subdivision and/or its surrounding areas, shall not be subdivided or developed unless adequate methods are formulated by the developer and approved by the Planning Commission, upon recommendation of the County Engineer, to solve the

problems created by the unsuitable land conditions. Such land shall be set aside for uses and shall not involve any danger to public health, safety, and welfare.

## **6.5 Subdivision Name.**

The proposed name of the subdivision shall not duplicate, or too closely approximate phonetically, the name of any other subdivision in the County. The Planning Commission shall have final authority to designate the name of the subdivision, which shall be determined at time of General Plat approval.

## **6.6 Lot Arrangement**

### **1. General Requirements for Layout.**

The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography or other conditions, in securing building permits to build on all lots in compliance with the Zoning Regulations and Health Regulations, and in providing driveway access to buildings on the lots from an approved street.

### **2. Lot Dimensions.**

Lot dimensions shall comply with the minimum standards of the Zoning Regulations. Minimum lot dimension and area shall not include any right-of-way or roadway easement, whether public or private, in lot size calculations. In general, side lot lines shall be at right angles to street lines (or radial to curving street lines) unless a variation from this rule will give a better street or lot plan. Dimensions of corner lots shall be large enough to allow for erection of buildings, observing the minimum front-yard setback from both streets. Depth and width of properties reserved or laid out for business, commercial, or industrial purposes shall be adequate to provide for the off-street parking and loading facilities required for the type of use and development contemplated, as established in the Zoning Regulations. For information on lot dimensions for different types of zoning districts refer to the Oklahoma County Zoning Regulations.

### **3. Lot Orientation.**

The lot line common to the street right-of-way shall be the front line. All lots shall face the front line and a similar line across the street. Wherever feasible, lots shall be arranged so that the rear line does not abut the side line of an adjacent lot.

### **4. Double Frontage Lots and Access to Lots.**

#### **a) Double Frontage Lots.**

Double frontage and reversed frontage lots shall be avoided except where necessary to provide separation of residential development from traffic arterials or to overcome specific disadvantages of topography and orientation.

**b) Access from Major and Arterial Streets.**

Lots shall not, in general, derive access exclusively from a major or arterial street. Where driveway access from a major or arterial street may be necessary for several adjoining lots, the Planning Commission may require that such lots be served by a combined access drive in order to limit possible traffic hazards on the street. Driveways should be designed and arranged so as to avoid requiring vehicles to back into traffic on major and secondary arterials. All driveways that have access to County roads shall have a hard surface covering in the right-of-way. (See also 6.8.2.c.)

**5. Lot Drainage.**

Lots shall be laid out so as to provide positive drainage away from all buildings, and individual lot drainage shall be coordinated with the general storm drainage pattern for the area. Drainage shall be designed so as to avoid concentration of storm drainage water from each lot to adjacent lots.

### **6.7 Block Layout.**

**1. General Requirements for Block Length and Width.**

The lengths, widths, and shapes of blocks shall be such as are appropriate for the locality and the type of development contemplated, but block lengths in residential areas shall not exceed one thousand five hundred (1,500) feet, nor be less than four hundred (400) feet in length. Wherever practicable, blocks along major arterials and collector streets shall be not less than one thousand (1,000) feet in length.

**2. Reservation of Easement.**

In long blocks the Planning Commission may require the reservation of an easement through the block to accommodate utilities, drainage facilities, or pedestrian traffic.

**3. Pedestrian Ways or Crosswalks.**

Pedestrian ways or crosswalks, not less than ten (10) feet wide, may be required by the Planning Commission through the center of blocks more than eight hundred (800) feet long where deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation, or other community facilities. Blocks designed for industrial uses shall be of such length and width as may be determined suitable by the Planning Commission for prospective use. All public and private walkways, trails, sidewalks, or other pedestrian or bicycle access routes shall meet the guidelines of the Americans with Disabilities Act.

**4. School Access.**

Schools access facilities may be required in any development. When required as part of any development approval process (i.e. subdivision, lot split, or building permit process), such access facilities shall be provided by a walkway, concrete sidewalk, or other impervious material approved by the County Engineer or designee.

**5. Sidewalks.**

The Oklahoma County Planning Commission will require, in order to facilitate pedestrian access from roads to schools, parks, and playgrounds, perpetual unobstructed easements at least five feet in width. Easements shall be indicated on the plat. All subdivisions within one mile of a school will be required to provide sidewalks for safe routes for children to get to and from school within the subdivision. All sidewalks shall be designed and constructed in accordance with American with Disabilities Act. All sidewalks shall be completed before the final residential inspection at the building permit phase.

**6. Maintenance of Pedestrian Ways and Sidewalks.**

Unless maintenance is provided by and under homeowners' or property owners' covenants, each owner or occupant of any house or other building, and any owner or person entitled to possession of any vacant lot, and any person having charge of any facility or public building shall be responsible for maintaining the pedestrian ways, crosswalks, or sidewalks adjacent to their property. During the winter season, this shall include keeping the sidewalk free of snow or ice and at all other times shall keep the sidewalk in good and safe repair in a clean condition, free from obstructions or encumbrances.

**6.8 Roads.**

**1. General Requirements.**

The street pattern of a neighborhood shall provide adequate circulation within the subdivision. The arrangement, character, extent, width, grade, and location of all streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public safety and convenience, and to the proposed uses of the land to be served by such streets. Proposed streets and roads shall provide a safe, convenient, and functional system for vehicular, pedestrian, and bicycle circulation, and shall be appropriate for the particular traffic characteristics of each proposed development. (See also **Appendix C and Appendix D.**)

**a) Traffic Impact Analysis.**

A Traffic Impact Analysis (TIA) is a study that will assess the affects that a particular development's traffic will have on the surrounding roadway network. A TIA may vary in range of detail and complexity depending on the type, size, and location of the development. A traffic impact study should accompany developments that have the potential to impact the transportation system. A TIA shall be required for any development or development proposal meeting the criteria outlined in Appendix D Traffic Impact Analysis Guidelines. The TIA shall be provided by the developer subject to the conditions and requirements outlined in Appendix E Traffic Impact Analysis Guidelines.

**b) Street and Roadway Names.**

Road/street names shall not be used which will duplicate or may be confused with the names of existing roads. No two roads shall be given the same name or similar sounding name. The purpose of this requirement is to enhance the easy and rapid location of properties for police, fire and medical services in emergency situations. This is in compliance with 9-1-1 and the National Emergency Number Associations (NENA) guidelines. Street names shall be subject to the approval of the Oklahoma County Planning Commission and 9-1-1 guidelines.

**c) Roadway Signs.**

Signs for streets shall be in accordance with the following:

- i. Street Signs.** The developer, owner, or owners shall provide and erect two (2) street or road name signs at each road intersection. The signs, posts, and mounting hardware shall be in conformance with the Oklahoma Manual on Uniform Traffic Control Devices (latest edition).
- ii. Traffic Control.** The developer, owner, or owners shall provide temporary (during construction) and permanent traffic control devices (signs, signals, pavement markings, and delineation) in accordance with the Oklahoma Manual on Uniform Traffic Control Devices (latest edition). A traffic control plan and permanent traffic control devices layout plan must be submitted and sealed by a licensed engineer.

**d) Layout.**

The street layout shall be designed for the most advantageous development of the entire neighborhood and shall conform to connecting streets in land adjacent to the new subdivision. Provisions shall be made within the subdivision to provide street access to adjacent undeveloped areas in such a way as to assure adequate circulation for future development.

**e) Frontage on Improved Roads.**

No subdivision shall be approved unless the area to be subdivided shall have frontage on and access from an existing street on the Official Map, or if there is no Official Map unless such street is:

- i.** An existing state, county, or township highway; or
- ii.** A street shown upon a plat approved by the Planning Commission and recorded in the Registrar of Deeds' office. Such street or highway must be suitably improved as required by these regulations, or specifications, or be secured by a performance bond required under these Subdivision Regulations, with the width and right-of-way required by these Subdivision Regulations or the Official Master Plan.

**f) Grading and Improvement Plan.**

Roads shall be graded and improved and conform to Oklahoma County's construction standards and specifications (see Appendix C). Land shall be approved as to design and specifications by the County Engineer, in accordance with the construction plans required to be submitted prior to Preliminary Plat approval. A subdivision that develops lots with direct access to a County section line road shall widen the section line road to a width appropriate for the density/intensity of the development being proposed.

**g) Classification.**

All roads shall be classified as either an arterial, collector, or local street.

**h) Road Dedications and Reservations.**

**i. New Perimeter Streets.** Street systems in new subdivisions shall be laid out so as to eliminate or avoid new perimeter half-streets. Where an existing half-street is adjacent to a new subdivision, the other half of the street shall be improved and dedicated by the subdivider. The Planning Commission may authorize a new perimeter street where the subdivider improves and dedicates the entire required street right-of-way width within its own subdivision boundaries.

**ii. Widening and Realignment of Existing Roads.** Where a subdivision borders an existing narrow road or the Official Map or zoning setback regulations indicate plans for realignment or widening a road that would require use of some of the land in the subdivision, the applicant shall be required to improve and dedicate at its expense those areas for widening or realignment of those roads. Frontage roads and streets as described above shall be improved and dedicated by the applicant at its own expense to the full width as required by these subdivision regulations when the applicant's development activities contribute to the need for the road expansion. Land reserved for any road purposes may not be counted in satisfying yard or area requirements of the Zoning Regulation whether the land is to be dedicated to the County in fee simple or an easement is granted to Oklahoma County.

**i) Minimum Right-of-Way.**

Minimum right-of-way for public and private roads is identified in Table 1:

**Table 1. Minimum Road Right-of-Way**

Road Classification	ROW Width
Arterial (Major)	100 feet
Collector	60 feet
Local	60 feet

**j) Excess Right-of-Way.**

Minimum Right-of-Way widths in the amount of fifty (50) feet on either side of an Arterial Road (total 100 feet) unless otherwise specified or required by the County Engineer. Right-of-way in excess of the standards designated in these regulations shall be required whenever, due to topography, additional width is necessary to provide adequate earth slopes. Such slopes shall not be in excess of three-to-one and must meet current County standards (see **Appendix C and Appendix D**).

**k) Topography and Arrangement.**

Roads shall be related appropriately to the topography. Local roads shall be curved wherever possible to avoid conformity of lot appearance. All streets shall be arranged so as to obtain as many building sites as possible at, or above, the grades of the streets. Grades of streets shall conform as closely as possible to the original topography. A combination of steep grades and curves shall be avoided.

**l) Existing Traffic.**

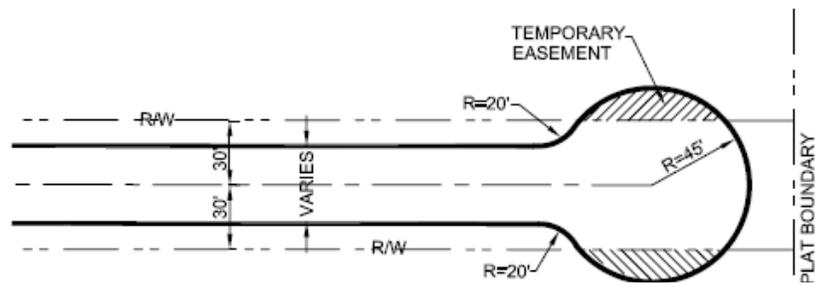
All streets shall be properly integrated with the existing and proposed system of thoroughfares and dedicated right-of-ways as established on the Official Map and/or Master Plan.

- i. All thoroughfares shall be properly related in their design to special traffic generators such as industries, business districts, schools, churches, and shopping centers; to population densities; and to the pattern of existing and proposed land uses.
- ii. Local streets shall be laid out to conform as much as possible to the topography to discourage use by through traffic, to permit efficient drainage and utility systems, and to require the minimum number of streets necessary to provide convenient and safe access to property.
- iii. The street layout shall be so designed, insofar as practical, to preserve natural features such as trees, streams, scenic views, and other such features.
- iv. The street layout shall provide for the acceptable disposal of storm water; provisions shall be made by the developer to plan for drainage in accordance with the rules and procedures herein stated.
- v. A rigid rectangular gridiron street pattern is discouraged, and the use of curvilinear streets, cul-de-sacs, or U-shaped streets shall be encouraged where such use will result in a more desirable layout.
- vi. Proposed streets shall be extended to the boundary lines of the tract to be subdivided, unless prevented by topography or other physical conditions, or unless in the opinion of the Planning Commission such extension is not necessary or desirable for the coordination of the layout of the subdivision with the existing layout or the most advantageous future development of adjacent tracks.

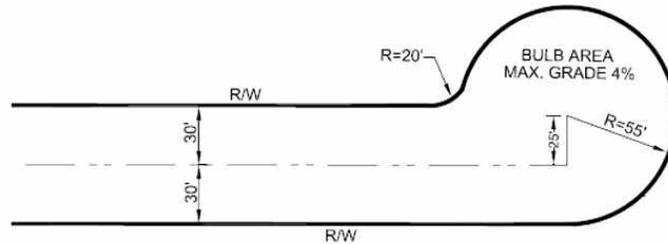
- vii. In business and industrial developments, the streets and other accessways shall be planned in connection with the grouping of buildings, location of rail facilities, and the provision of alleys, truck loading and maneuvering areas, walks and parking areas so as to minimize conflict of movement between the various types of traffic, including pedestrian.
  - viii. All pedestrian facilities shall be properly designed in accordance with the Americans with Disabilities Act (ADA).
- m) Access to Arterials.** Where a subdivision borders on or contains an existing or proposed arterial, the Planning Commission may require that access to such streets be limited by one of the following means:
- i. Design the subdivision so that residential lots back onto the arterial or major street and front onto a parallel local street; no access shall be provided from the arterial and screening shall be provided in a strip of land along the rear property line of such lots. "Limits-of-No-Access" notes shall be required to be placed on the face of the Final Plat.
  - ii. A series of cul-de-sacs, U-shaped streets, or short loops entered from and designed generally at right angles to such a parallel street, with the rear lines of their terminal lots backing onto the arterial.
  - iii. A frontage or service road (separated from the arterial by a planning or grass strip and having access at suitable points).
- n) Construction of Roads and Dead-End Roads.**
- i. **Construction of Roads.**  
The arrangement of streets shall provide for the continuation of principal streets between adjacent properties when the continuation is necessary for convenient movement of traffic, effective fire protection, efficient provision of utilities, and where the continuation is in accordance with Oklahoma County's traffic plan. If the adjacent property is undeveloped and the street must temporarily be a dead-end street, the right-of-way shall be extended to the property line. A temporary T- or L-shaped turnabout shall be provided on all temporary dead-end streets, with the notation on the subdivision plat that land outside the normal street right-of-way shall revert to abutters whenever the street is continued. The Planning Commission may limit the length of temporary dead-end streets in accordance with the design standards of these Regulations.

## ii. **Dead-End Roads.**

Where a road does not extend beyond the boundary of the subdivision and its continuation is not required by the Planning Commission for access to adjoining property, its terminus shall normally not be nearer to such boundary than fifty (50) feet. However, the Planning Commission may require the reservation of an appropriate easement to accommodate drainage facilities, pedestrian traffic, or utilities. A cul-de-sac turn-around shall be provided at the end of a permanent dead-end street in accordance with Oklahoma County construction standards and specifications. For greater convenience to traffic and more effective police and fire protection, permanent dead-end streets shall, in general, be limited in length in accordance with the design standards of these regulations.



### Alternative Cul-de-sac Configuration



## 2. **Design Standards.**

In order to provide for roads of suitable location, width, and improvement to accommodate prospective traffic and afford satisfactory access to police, firefighting, sanitation, and road-maintenance equipment, and to coordinate roads so as to compose a convenient system and avoid undue hardships to adjoining properties, the following design standards for roads are hereby required.

### a) **Bridges.**

Bridges of primary benefit to the applicant, as determined by the Planning Commission, shall be constructed at the full expense of the applicant without reimbursement from Oklahoma County and constructed in conformance to all state and local regulations.

**b) Intersections.**

- i. Streets and alleys shall be laid out so as to intersect as nearly as possible at right angles. A proposed intersection of two (2) new streets at an angle not less than ninety (90) degrees shall not be acceptable unless approved by the County Engineer upon evidence of good cause. An oblique street should be curved approaching an intersection and should be approximately at right angles for at least one hundred (100) feet there from. Not more than two (2) streets shall intersect at any one point unless specifically approved by the Planning Commission.
- ii. Proposed new intersections along one side of an existing street shall, wherever practicable, line up or coincide with any existing intersections on the opposite side of such street.
- iii. Street jogs with center-line offsets of less than 150 feet shall not be permitted, except where the intersected street has separated dual drives without median breaks at either intersection. Offset distances shall be indicated on the Preliminary Plat.
- iv. Where streets intersect major streets, their alignment shall be continuous. Intersection of major streets shall be at least five (500) feet apart. A collector street and arterial (section line) road shall be considered a major intersection for purposes of these Regulations.
- v. Minimum curve radius at the intersection of two (2) local streets shall be at least twenty (20) feet; and minimum curve radius at an intersection involving a collector street shall be at least twenty-five (25) feet. Alley intersections and abrupt changes in alignment within a block shall have the corners cut off in accordance with standard engineering practice to permit safe vehicular movement.
- vi. Intersections shall be designed with a flat grade wherever practical. In hilly or rolling areas, at the approach to an intersection, a leveling area shall be provided having not greater than a two percent (2%) rate at a distance of sixty (60) feet, measured from the nearest right-of-way line of the intersecting street.
- vii. Where any street intersection will involve earth banks or existing vegetation inside any lot corner that would create a traffic hazard by limiting visibility, the developer shall cut such ground and/or vegetation (including trees) in connection with the grading of the public right-of-way to the extent deemed necessary to provide an adequate sight distance.
- viii. The cross-slopes on all streets, including intersections, shall be three percent (3%) or less.

## Subdivision Regulations

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**c) Centerline Curve Radius.**

The minimum centerline radius on curves applicable to a proposed subdivision is shown in Table 2.

**Table 2. Minimum Radius on Curves**

Road Classification	Minimum Radius
Arterial	As approved by the County Engineer 800 feet
Collector	100 feet
Local	50 feet

**d) Centerline Grade.**

The minimum grade of a street shall be 0.5% and the maximum grade of a street shall be 7% unless otherwise approved by the County Engineer.

**e) Cul-De-Sac**

A turn-around shall have a minimum right-of-way radius of fifty (50) feet for single family use where curb and gutter is required; a radius of sixty (60) feet for single family use where a rural section design is utilized; and a one hundred (100) foot radius for apartments, commercial, or other non-residential uses. See also Section 6.1.8.h for dead-end street requirements.

**f) Street Knuckle.**

Where an intersection between two (2) streets occurs to form an approximate ninety (90) degree intersection and where there are no future plans to extend the street or streets to form a tee intersection or a four-way intersection, the intersection shall be designed with a street knuckle. The use of a street knuckle shall be limited to use on local streets. The minimum radius of the paved areas of a street knuckle shall be forty (40) feet.

**g) Pavement Width.**

Minimum pavement widths are listed in Table 3.

**Table 3. Minimum Pavement Width**

Road Classification	Pavement Width
Arterial: 4 lane	54 feet
Arterial: 4 lane	48 feet
Collector	26 feet
Local	22 feet

**h) Pavement Structure.**

Minimum pavement structure is outlined in Appendix D.

**i) Expansion and Dummy Joints**

- i. An expansion joint consisting of 3/8" x 2-1/2" pre-molded joint material shall be placed around fire hydrants, poles, posts, and utility castings and along walls or structures in paved areas. Joint material shall conform to the requirements of American Society for Testing and Materials (ASTM) D994 (American Association of State Highway and Transportation Officials, AASHTO M33).
- ii. Expansion joints shall be placed and sealed in curbs and sidewalks at a minimum of 50 foot intervals and at sides of drainage inlets.
- iii. Dummy joints in sidewalks shall be located so as to match the joints in the curb whether sidewalk is adjacent to curb or separated by planting strip. Tool marks consisting of 1/4" V-grooves shall be made in sidewalks at five-foot intervals intermediate to the expansion joints. As alternative to expansion joints around structures, reinforcing bars may be embedded in concrete on four sides of structures. Interface between curb and adjacent sidewalk on integral pour construction shall be formed with 1/4" radius edging tool. On separate pour construction an expansion joint consisting of 3/4" of pre-molded joint material shall be placed between the curb or thickened edge and the adjacent sidewalk.

**i) Curb Ramps.**

All streets with vertical, ramped sections to facilitate passage of handicapped persons shall be constructed through curb and sidewalk at street intersections and other crosswalk locations. Where a ramp is constructed on one side of the street, a ramp shall also be provided on the opposite side of the street. Curb ramps shall be positioned so that a ramp opening is situated within the marked crosswalk or crossing area if unmarked and must meet ADA requirements.

**j) Concrete Steps, Metal Handrail, and Handicapped Access Ramps.**

Steps shall only be used where acceptable alternative access is available for handicapped access and there is a need for a separate stairway. Where used, concrete steps shall be constructed in accordance with designs acceptable to the County Engineer or designee and consistent with the Oklahoma Department of Transportation (ODOT) Standard Specifications. Handrails, whether for steps or other applications, shall be provided in accordance with the ODOT Standard Specifications. Ramps used to provide handicapped access shall be no steeper than 12:1 with a maximum rise of 30 inches between landings. Landings shall have a minimum length of five feet and should be of sufficient width to allow wheelchairs to pass, generally five feet minimum width for two-way traffic. In all cases, improvements must meet the minimum ADA requirements.

### **k) Road Dedications and Reservations.**

- i. New Perimeter Streets. Street systems in new subdivisions shall be laid out so as to eliminate or avoid new perimeter half-streets. Where an existing-half-street is adjacent to a new subdivision, the other half of the street shall be improved and dedicated by the subdivider. The Planning Commission may authorize a new perimeter street where the subdivider improves and dedicates the entire required street right-of-way width within its own subdivision boundaries.
- ii. Widening and Realignment of Existing Roads. Where a subdivision borders an existing narrow road or the Official Map or zoning setback regulations indicate plans for realignment or widening a road that would require use of some of the land in the subdivision, or the required TIA identifies necessary roadway improvements, the applicant shall be required to improve and dedicate at its expense those areas for widening or realignment of those roads. Frontage roads and streets as described above shall be improved and dedicated by the applicant at their own expense to the full width as required by these subdivision regulations when the applicant's development activities contribute to the need for the road expansion. Land reserved for any road purpose may not be counted in satisfying yard or area requirements of the Zoning Regulation whether the land is to be dedicated to the County in fee simple or an easement is granted to Oklahoma County.

### **3. Access Management.**

Access management is difficult to accomplish through the permitting process or roadway construction alone. Access Management must also be addressed in the planning process. Proposed developments serving non-residential traffic that adversely impact adjacent neighborhoods should be reviewed by the Planning Department to determine appropriate driveway locations and possible turn restrictions. The following outlines access management requirements for new roads, driveways, and subdivisions.

#### **a) Driveway Access**

- i. Driveway access should be consistent with specifications outlined in Table 4 and measured as indicated in Figure 1. Dimension 'A' for Street/Driveway Separation. The placement of the driveway should be as far away as possible from intersections.
- ii. Driveways should be spaced at a sufficient distance from other driveways to allow for safe and efficient traffic flow. A minimum separation between driveways is outlined in Table 5 Minimum Separation Between Adjacent Driveways. Sufficient distance between offset driveways should also be provided. In order to allow County Planning and Engineering staff to adequately review proposed driveways, information regarding existing driveways for adjacent and

opposite sides of street properties should be depicted on site plans accompanying applications for building permits.

- iii. Driveway access points should be limited in number and/or restricted to limited turning movements (e.g. right turns only where necessary for the safe and efficient movement of traffic).
- iv. Only one driveway per lot frontage should be allowed in cases where the construction of more than one driveway per lot frontage would amount to a violation of standards noted in Table 4 or Table 5 Minimum Separation Between Adjacent Driveways (with the separation standards being applied to driveways on lots adjacent to the subject lot as well as to those on the subject lot itself). While no property will be denied reasonable access, the County Engineer may require redesign of proposed access in order to safely control traffic flow. Existing driveway access may also require redesign in conjunction with the issuance of building permits for new construction or remodeling.
- v. Common or shared driveways constructed for joint use of adjoining properties may be permitted with the provision of documentation evidencing the existence of common rights to driveway access (cross access agreements shall be required).
- vi. Directional driveways may be required in order to restrict the movement of traffic in certain conditions; directional driveways may be either: (1) a directional driveway with right-turn-only or (2) a directional driveway with left-turn-only driveways.

**b) Driveway Separation Standards.**

Maintaining an adequate spacing between commercial driveways is a critical aspect of access management. Traffic turning into and out of driveways not only moves slower but causes other traffic to also move slower. This speed difference causes direct traffic conflicts between turning or maneuvering vehicles entering or leaving a driveway, and through arterial traffic that may lead to broadside and rear-end collisions between vehicles. Traffic conflicts caused by the difference in relative vehicle speed, turning movements, and lane change maneuvers increase accidents and impair the safety of arterial streets. To minimize conflicts:

- i. Access separation between a driveway and an intersection shall be measured from the nearest edge of the driveway to the intersecting street centerline except for a freeway. Spacing from freeways will be from the nearest right-of-way line. See minimum separation (dimension 'A' in Figure 1) standards in Table 4.
- ii. Separation between driveways shall be measured from the inside edge to inside edge of driveway (see dimension 'A' in Figure 2 and Table 5 Minimum Separation Between Adjacent Driveways).
- iii. The number of driveways should be minimized whenever possible to limit conflicts and increase the safety of the street system.

Figure 1. Dimension 'A' for Street/Driveway Separation

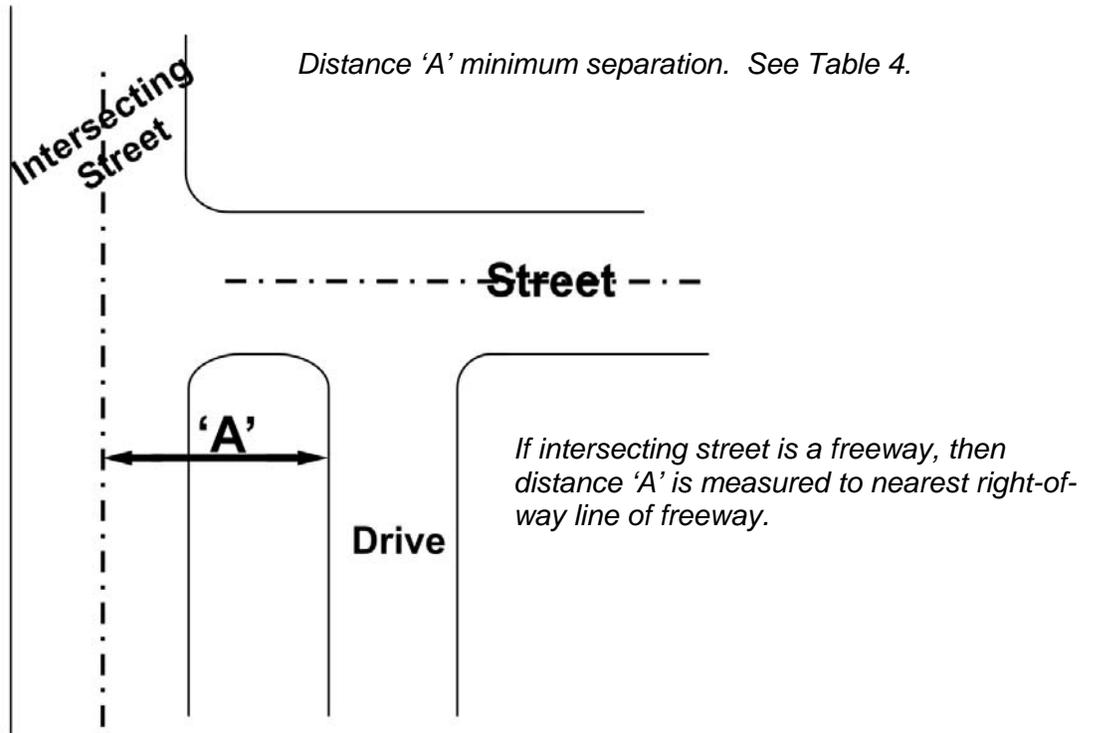
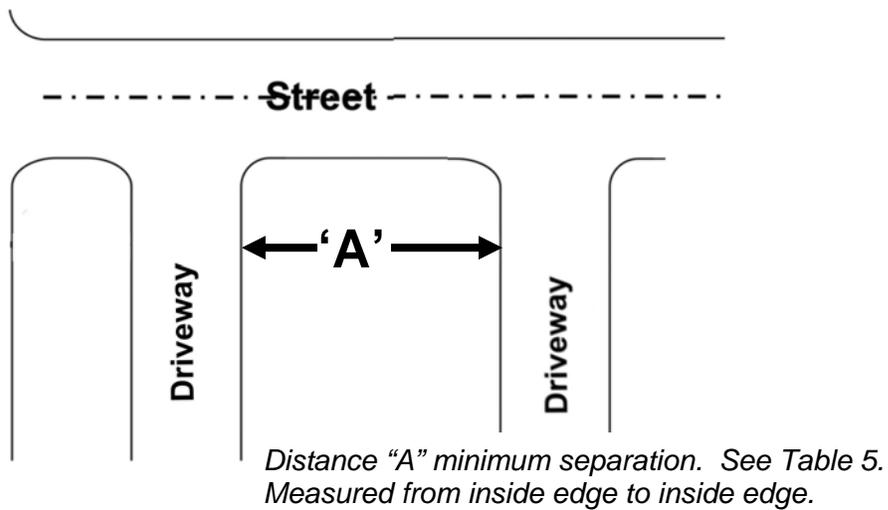


Figure 2. Dimension 'A' for Driveway/Driveway Separation



**Table 4 Minimum Separation Between Driveways & Intersections**  
**Table 5 Minimum Separation Between Adjacent Driveways**

**Table 4 Minimum Separation between Driveways and Street**

		Street on which driveway is to be located. See dimension 'A'			
Intersecting Street	Freeway Frontage rd	Industrial	Arterial	Collector	
Freeway* frontage road	N/A	300'	200'	200'	
Boulevard	230'	180'	180'	180'	
Arterial	250'	170'	170'	140'	
Industrial	300'	135'	155'	135'	
Commercial Collector	250'	125'	135'	95'	
Residential Collector	250'	120'	130'	95'	
Residential Local	230'	130"	130'	90'	

\*Measured from the frontage road right-of-way

**Table 5 Minimum Separation between Adjacent Driveways**

Posted Speed Limit	Local	Freeway Frontage	Indust'l	Arterial	Collector
0-40	**100'	200'	150'	185'	**100'
>40	150'	200'	200'	200'	125'

\*\*Excludes permitted uses in residential zoning districts.  
 Adjacent driveway separation measured from driveway inside edge to inside edge.

**Intersection Design Between a Two-Way Drive and an Arterial, Collector, or Residential (Local) Street.** The intersection of a two-way driveway shall be designed to intersect any arterial at a ninety-degree angle. The corner radius of a ninety-degree driveway shall be no less than ten (10) feet; provided that residential driveways on residential local or any collector street shall have a minimum radius of five (5) feet. A minimum sight distance of four hundred (400) feet for vehicles using a driveway to enter an arterial street shall be required at each point of driveway intersection. The sight distance shall be measured from a point on the driveway at least fifteen (15) feet from the edge of the arterial street pavement and measured from a height of eye of three and one half (3.5) feet on the driveway to a height of object of four and one half (4.5') feet on the arterial street. One-way egress driveways shall conform to the sight distance requirements that are stated for two-way driveways. One-way egress driveways of less than ninety degrees egress may be required by the County Engineer where it is determined that it is in the interest of the public health, safety, and general welfare. All driveways and access facilities shall be designed to meet the grade, alignment, pavement, and channelization standards and other specifications prescribed by County adopted standards.

### **c) Driveway Design and Construction.**

- i. Driveway Width.** The width of private driveways should not exceed twenty-four (24) feet, measured at right angles to the centerline of the driveway, except as increased by permissible radii. The width of commercial driveways should not exceed forty-five (45) feet, measured at right angles to the centerline of the driveway, except as increased by permissible radii.
- ii. Driveway Drainage Structures.** All culvert pipe shall be constructed of reinforced concrete pipe or corrugated metal pipe (CMP) and shall be circular in cross section. Heavy duty plastic pipe may be approved by the County Engineer on a case by case basis. The minimum diameter of pipe shall be eighteen (18) inches. The minimum height of cover for driveway pipe culverts shall be six (6) inches. The length of pipe shall be adequate to allow the front slope of the driveway to have a 6:1 slope. Where two or more driveways are located adjacent to each other it is desirable to place a continuous run of pipe under and between the driveways to eliminate the depression between the driveways. Separation of the driveways must be maintained by means of unpaved areas or other means. When the total length of pipe is one hundred and twenty (120) feet or greater the installation of a cleanout (manhole or drop inlet) is required. If the drainage structure is to be constructed using box culverts the same requirements for front slopes and installation of cleanouts, as shown for pipes, will apply.
- iii. Placement of Driveway Drainage Structures.** Pipe or box culverts shall be placed in line with the flow line of the roadway ditch. The flow line of the pipe or box culvert shall be placed four (4) inches below the flow line of the ditch.
- iv. Driveway Pavement.** A Typical Section for driveways shall be included in the roadway construction plans if driveways are to be constructed at the time the roadway is constructed. Driveways may be paved with a two (2) course surface treatment, hot mix asphalt concrete, or reinforced Portland cement concrete. If reinforced Portland cement concrete is to be used the concrete shall not be placed closer than eight (8) feet from the edge of the roadway pavement. At the right-of-way line there shall be a pre-mold or board joint. The driveway pavement between the concrete driveway and the edge of pavement should be constructed to match the cross section of the roadway.

## **6.9 Drainage and Storm Sewers.**

### **1. General Requirements.**

The Planning Commission shall not recommend for approval any plat or subdivision that does not make adequate provision for storm and flood water runoff channels or basins. The storm water drainage system shall be separate and independent of any sanitary sewer system. A copy of design computations shall be submitted along with Preliminary Plat. Inlets shall be provided so that surface water is carried across or around any intersection, not to exceed a distance of more than 600 feet in the gutter. When calculations indicate that curb capacities are exceeded at a point, no further allowance shall be made for flow beyond that point, and basins shall be used to intercept flow at that point. Surface water drainage patterns shall be shown for each and every lot and block.

### **2. Nature of Storm Facilities**

#### **a) Easements Required.**

The applicant may be required by the Planning Commission to carry away by pipe or open ditch any spring or surface water that may exist either previously to, or as a result of the subdivision. Such drainage facilities shall be located in the road right-of-way where feasible, or in perpetual unobstructed easements of appropriate width, and shall be constructed in accordance with the construction standards and specifications.

#### **b) Accessibility to Public Storm Sewers.**

Where a public storm sewer is accessible, the applicant shall install storm sewer facilities, or if no outlets are within a reasonable distance, adequate provision shall be made for the disposal of storm waters, subject to the specifications of the County Engineer.

#### **c) Accommodation of Upstream Drainage Areas.**

A culvert or other drainage facility shall in each case be large enough to accommodate potential runoff from its entire upstream drainage area, whether inside or outside the subdivision.

#### **d) Effect on Downstream Drainage Areas.**

Where it is anticipated that the additional runoff incident to the development of the subdivision will overload an existing downstream drainage facility, the Planning Commission may withhold approval of the subdivision until provision has been made for the expansion of the existing downstream drainage facility. No subdivision shall be approved unless adequate drainage will be provided to an adequate drainage watercourse or facility.

**3. Dedication of Drainage Easements.**

a) **General Requirements.** When a subdivision is traversed by a watercourse, drainageway, channel, or stream, there shall be provided a storm water easement or drainage right-of-way conforming substantially to the lines of such watercourse, and of such width and construction as will be adequate for the purpose. Wherever possible, it is desirable that the drainage be maintained by an open channel with landscaped banks and adequate width for maximum potential volume of flow.

b) **Drainage Easements.**

- i. Where topography or other conditions are such as to make impractical the inclusion of drainage facilities within road rights-of-way, perpetual, unobstructed easements at least fifteen (15) feet in width for drainage facilities shall be provided across property outside the road lines and with satisfactory access to the road. Easements shall be indicated on the Preliminary Plat and Final Plat. Drainage easements shall extend from the road to a natural watercourse or to other drainage facilities.
- ii. When a proposed drainage system will carry water across private land outside the subdivision, appropriate drainage rights must be secured and indicated on the plat.

**4. Drainage Facility Standards.**

Where storm water drainage facilities shall be designed and constructed to accommodate the design storm event shown in Table 6.

**Table 6. Minimum Drainage Standards**

Drainage Component	Design Storm Event Frequency (Years)
<b>Arterial Road</b>	
Storm water contained within adjacent ditch	100
Storm Water below adjacent habitable structures	100
Drainage Structures/Channels	100
<b>Collector</b>	
Storm water contained within adjacent ditch	25
Storm Water below adjacent habitable structures	100
Drainage Structures/Channels	25
<b>Local</b>	
Storm water contained within adjacent ditch	25
Storm Water below adjacent habitable structures	100
Drainage Structures/Channels	25

## **6.10 Water Facilities: General Requirements.**

### **1. Water Main Extensions.**

Water main extensions shall be approved by the officially designated agency of the state or local government.

### **2. Water Supply Improvements.**

The location of all fire hydrants, all water supply improvements, and the boundary lines of proposed districts, indicating all improvements proposed to be served, shall be shown on the preliminary plat, and the cost of installing same shall be borne by the developer.

### **3. Fire Hydrants.**

Fire hydrants will be required in subdivisions Zoned RS or denser and must meet or exceed the State of Oklahoma Fire Marshal minimum standards.

## **6.11 Easements: General Requirements.**

### **1. Rear Lot Easements.**

Easements on rear lot lines shall be provided for utilities (private and municipal) and such easements shall be at a minimum of ten (10) feet wide centered on the lot line. Proper coordination shall be established between the subdivider and the applicable utility companies for the establishment of utility easements established in adjoining properties.

### **2. Rear Lot Utilities.**

When topographical or other conditions are such as to make impractical the inclusion of utilities within the rear lot lines, perpetual unobstructed easements at least ten (10) feet in width shall be provided along side lot lines with satisfactory access to the road or rear lot lines. All existing or proposed, public or private easements shall be indicated on the Preliminary Plat and the Final Plat.

## **6.12 Preservation of Natural Features and Amenities.**

### **1. General.**

Existing features that would add value to residential development or to Oklahoma County as a whole, such as trees, as herein defined, watercourses and falls, historic spots, and similar irreplaceable assets, shall be preserved in the design of the subdivision.

### **2. Tree Removal.**

No trees shall be removed from any subdivision nor any change of grade of the land affected until approval of the Preliminary Plat has been granted and erosion control bonds have been received by the Planning Commission. All trees on the plat required to be retained shall be welled and protected against change of grade. The General Plat shall show the number and location of existing trees as required by these regulations.

**6.13 Nonresidential Subdivisions.**

**1. General.**

If a proposed subdivision includes land that is zoned for commercial or industrial purposes, the layout of the subdivision with respect to the land shall make provision as the Planning Commission may require. A nonresidential subdivision shall also be subject to all the requirements of site plan approval set forth in the Zoning Regulations. Site plan approval and nonresidential subdivision plat approval may proceed simultaneously at the discretion of the Planning Commission. A nonresidential subdivision shall be subject to all the requirements of these regulations, as well as such additional standards required by the Planning Commission, and shall conform to the proposed land use and standards established on the Official Map and in the Zoning Regulation.

**2. Standards.**

In addition to the principles and standards in these regulations, which are appropriate to the planning of all subdivisions, the applicant shall demonstrate to the satisfaction of the Commission that the street, parcel, and block pattern proposed is specifically adapted to the uses anticipated and takes into account other uses in the vicinity. The following principles and standards shall be observed:

**a) Industrial Parcels.**

Proposed industrial parcels shall be suitable in area and dimensions to the types of industrial development anticipated.

**b) Street Rights-of-way and Pavement.**

Street right-of-ways and pavement shall be adequate to accommodate the type and volume of traffic to be generated.

**c) Street, Curb, Gutter, and Sidewalk Design.**

Special requirements may be imposed by Oklahoma County with respect to street, curb, gutter, and sidewalk design and construction.

**d) Public Utilities.**

Special requirements may be imposed by Oklahoma County with respect to the installation of public utilities, including water, sewer, and storm water drainage and erosion control.

**e) Adjacent Residential Protection.**

Every effort shall be made to protect adjacent residential areas from potential nuisance from a proposed commercial or industrial subdivision, including, but not limited to, the provision of extra depth in parcels backing up on existing or potential residential development and provisions for a permanently landscaped buffer strip when necessary.

**f) Non-Residential traffic.**

Streets carrying nonresidential traffic, especially truck traffic, shall not normally be extended to the boundaries of adjacent existing or potential areas.

**APPENDIX A**

**PLAT CHECKLISTS**

**1. OKLAHOMA COUNTY  
PRELIMINARY PLAT REQUIREMENTS  
CHECKLIST**

**2. OKLAHOMA COUNTY  
FINAL PLAT REQUIREMENTS  
CHECKLIST**

Oklahoma County  
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PRELIMINARY PLAT CHECK LIST

Case No. PP-\_\_\_\_\_

Name Of Plat: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Initials) \_\_\_\_\_

ITEMS REQUIRED REMARKS: Check ( ) Satisfactory or List Deficiencies.

- ( ) 1. Certified abstract list of surrounding property owners (Section 3.4)
- ( ) 2. Ten (10) copies of plat, 24" x 36" folded to 8 1/2" x 11"
- ( ) 3. Plat submitted electronically using AutoCAD and pdf file
- ( ) 4. Scale (hardcopy), 200 ft. to one inch
- ( ) 5. List of all utilities and emergency services
- ( ) 6. Index sheet required if plat consists of three or more sheets
- ( ) 7. Erosion Control Bonds, line item of cost, and materials
- ( ) 8. Filed copy of NOI
- ( ) 9. Restrictive Covenants
- ( ) 10. Preliminary Plat shall show
  - a. Name of owner(s) or developer(s), title of plat, engineer and seal, surveyor and seal
  - b. Description of property, including legal description
  - c. Boundary lines of area being developed
  - d. Location of plat in relation to section line roads
  - e. Lines of proposed streets and alleys
  - f. Width and names of proposed streets
  - g. Total size of property dedicated for public use (other than streets)
  - h. Boundaries of all adjacent tracts, streets, and alleys with their width and names
  - i. Proposed sidewalks, trails, or bike paths
  - j. All lot lines and dimensions
  - k. All monuments in place
  - l. Front building lines and rear /side yard setbacks
  - m. All easements, including pipelines
  - n. All lot and block numbers

- o. All linear (expressed in feet and decimals of a foot) and angular dimensions needed to locate:
  - i. Boundaries of the subdivision
  - ii. Lots
  - iii. Streets
  - iv. Alleys
  - v. Easements
  - vi. Building lines
- p. Streets must show:
  - i. radii
  - ii. arcs
  - iii. chords
  - iv. points of tangency
  - v. central angles for curvilinear streets
  - vi. radii for all rounded corners
  - vii. distances measured as arc lengths
- q. All survey monuments and bench marks together with their descriptions:
- r. North Point
- s. Scale of plan
- t. Date
- u. Permanent markers shown around the subdivision's boundaries at the following location:
  - i. corner angle points
  - ii. points of curvature ( P. C.)
  - iii. points of tangency ( P. T. )
- v. Permanent markers shown around the boundary of each block at the following locations:
  - i. corner angle point
  - ii. points of curvature ( P. C.)
  - iii. points of tangency ( P. T. )
  - iv. alley lines

( ) 11. Two prints of paving plan and profile/drainage(including calculations)/erosion control plans

( ) 12. Road widening plans at ingress/egress

( ) 13. Statistical information including Number of Lots and acres:

Note: This check list is prepared to facilitate the administration of the Subdivision Regulations of Unincorporated Oklahoma County.

**FINAL PLAT CHECK LIST**

Case No. FP-\_\_\_\_\_

Name Of Plat: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: \_\_\_\_\_  
(Initials) \_\_\_\_\_

**ITEMS REQUIRED      REMARKS: Check ( ) Satisfactory or List Deficiencies.**

- ( ) 1. Property Owners List. Certified abstract list as per Section 3.4
- ( ) 2. Three (3) blue-line prints and two (2) Mylar copies of the approved Final Plat using a scale of 1" = 200' or less, with a one-inch top, bottom, and right margin; three-inch left margin. An index sheet must be used if two or more sheets are required.
- ( ) 3. An electronic copy must be submitted in AutoCAD and in pdf format
- ( ) 4. Road/Street Maintenance Bond.
- ( ) 5. As-Builts: Paving and Drainage
- ( ) 6. In addition to those required at the Preliminary Plat phase, these items must be shown on the Final Plat:
  - a. Section corners, survey monuments with descriptions and references - showing distance and direction.
  - b. Private restrictions and trusteeships and the period of existence.
  - c. If any common lots, private drainage easements, or other private areas are established on the plat, a note shall be placed on the plat indicating such and that all common or private areas are not maintained by the public but are maintained by a homeowners association.
  - d. Property dedicated for public use.
  - e. Driveway culvert (tinhorn) for private drives including locations and size by lot or by area.
  - f. Owner's certificate.
  - g. Surveyor's certificate.
  - h. Certificate of Bonded Abstractor.
  - i. Certificate of Release of Mortgage for any portion dedicated to the public.
  - j. County Planning Commission Approval Certificate.

- k. County Treasurers Certificate
  - l. Engineer's Certificate.
  - m. DEQ Certificate.
  - n. County Commissioner's Certificate showing approval of the plat and text as follows: "the roads established on this plat are public and will be maintained by the County" or "the roads established on this plat are private and will not be maintained by the County"(located under the signature block using whichever text is applicable).
  - o. Subdivision Name.
  - p. County and State Name.
  - q. Location including Section, Township, and Range.
- ( ) 7. The Mylar(s) must have all necessary seals, certifications, and signatures before the scheduled Planning Commission meeting and be turned in to staff at least 24 hours before the meeting.
- ( ) 8. Completed application and fee. All fees are non-refundable.

After Planning Commission Approval:

- ( ) 9. Upon approval by the Planning Commission, the Final Plat and the bonds will be submitted to the County Commissioners for approval. After County Commissioner approval, the Final Plat must be filed with the Registrar of Deeds within sixty days of County Commissioner's approval.
- ( ) 10. The Final Plat must be filed with the Registrar of Deeds within 60 days of approval by the County Commissioners. Failure to file within 60 days will render the Final Plat null and void.
- ( ) 11. One Mylar of the approved, signed and filed Final Plat must be submitted to the Planning Department as a file copy.

Note: This check list is prepared to facilitate the administration of the Subdivision Regulations of Unincorporated Oklahoma County.

**APPENDIX B**

**REQUIRED SIGNATURE  
BLOCKS FOR PLAT**

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## Subdivision Regulations

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### OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (if required)

The Oklahoma Department of Environmental Quality certifies that this plat of an addition in Oklahoma County, Oklahoma, is approved for construction of individual well and disposal systems.

\_\_\_\_\_  
Department of Environmental Quality

\_\_\_\_\_  
Date

### COUNTY TREASURER'S CERTIFICATE

I, \_\_\_\_\_, do hereby certify that I am duly qualified and acting County Treasurer of Oklahoma County, Oklahoma, and that the tax records of said county show that all taxes for the year 20\_\_\_\_, and prior years are paid on the land shown on this plat to Oklahoma County, Oklahoma, that the required statutory security has been deposited in the office of the County Treasurer guaranteeing the current years taxes.

In witness whereof: Said County Treasurer has caused this instrument to be executed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

BY: \_\_\_\_\_

### COUNTY COMMISSIONER'S APPROVAL

I, \_\_\_\_\_, Chairman of the Board of County Commissioners of Oklahoma County, Oklahoma, hereby certify that the said County Commissioners duly approved this plat in Oklahoma County, Oklahoma, on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature:

ATTEST:

\_\_\_\_\_

\_\_\_\_\_

The roads shall be maintained by the County.  
The roads shall not be maintained by the County.  
(Whichever is applicable to the plat)

**APPENDIX C**

**OKLAHOMA COUNTY  
PAVING DESIGN STANDARDS**

**Chapter 16  
Paving Design**

Sub grade Index Method Pavement Design

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Chapter Sixteen

Pavement Design

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## Chapter Sixteen

# PAVEMENT DESIGN

### 16.1 INTRODUCTION

Pavements represent the largest expenditure of funds for the Oklahoma Department of Transportation in the construction and maintenance of highways and streets. The traveling public is more influenced by the quality of the pavement than by any other element on the system. Many other items are important to the road user such as signing and striping, safety features and properly engineered vertical and horizontal alignments. However, the most lasting impression the typical road user retains is the quality of the ride on the road. All other roadway elements may become insignificant to the driver if a pavement structure is severely faulted or deeply rutted.

Pavement structures are systems of interconnected materials which, when properly designed, constructed and maintained, deliver a durable, high-quality ride for the traveling public. Good design and construction processes result in the lowest annual maintenance costs for any pavement system.

Chapter Sixteen presents a narrative discussion on the two types of pavement structures — flexible pavements and rigid pavements. The three primary areas of pavement engineering include the:

1. design methodology;
2. construction materials, processes and control; and
3. routine, preventive and rehabilitative maintenance.

When these are properly implemented and meet current ODOT policies, either of the two types of pavement structure will function properly.

Chapter Sixteen also presents a brief introduction into the role of the designer, ODOT Pavement Design Engineer, and his interface with the ODOT Pavement Design Committee.

16.1(1)

## 16.2 PAVEMENT DESIGN PROCEDURE

The current procedure for developing a "pavement design" is for the ODOT Pavement Design Engineer to design the pavement or to furnish guidance to the designer to design the pavement. The ODOT Pavement Design Engineer or the designer is furnished pertinent data, including:

1. the proposed project scope relative to the pavement criteria, including the scoping report if available;
2. design traffic data;
3. preliminary plans with grades and, for some special designs, cross sections; and
4. soils report.

After completion of the design by the ODOT Pavement Design Engineer or the designer, the ODOT Pavement Design Engineer prepares a pavement recommendation for submission to the Pavement Design Committee, that includes:

5. projected letting date;
6. project description;
7. rigid and flexible pavement design alternatives with estimated cost comparisons;
8. information on pavement type, availability of materials, traffic data, soils and environment;
9. recommended pavement design alternative; and
10. design parameters.

The package is presented to the ODOT Pavement Design Committee for their review.

Based upon their expertise, the design options may be approved as presented or the Committee may request another design alternative. The ODOT Pavement Design Committee consists of the:

1. Chief Engineer,
2. Assistant Director — Design,
3. Assistant Director — Operation,
4. Construction Engineer,
5. Materials Engineer,
6. Rural Design Engineer,
7. Urban Design Engineer,
8. Research and Development Engineer, and
9. Pavement Design Engineer.

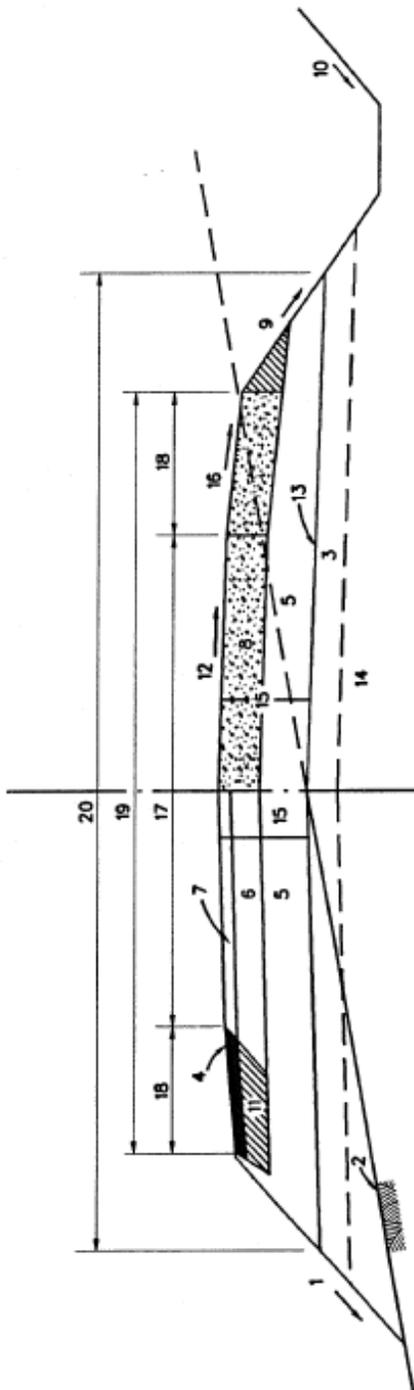
In addition to the Pavement Design Committee, the Field Division Engineer also reviews and concurs in the proposal. Upon approval, FHWA is furnished the completed design recommendation.

16.2(1)

### 16.3 PAVEMENT TYPES

There are two types of new pavement structure systems — flexible and rigid.

Figure 16.3A presents a definition of pavement structure terms used in Chapter Sixteen. For further definition of the terms, see Reference (2).



Source (2) Revised

FLEXIBLE PAVEMENT SECTION

RIGID PAVEMENT SECTION

STRUCTURAL DESIGN TERMS

- 1 - FILL SLOPE
- 2 - ORIGINAL GROUND
- 3 - SELECTED MATERIAL OR PREPARED ROADBED
- 4 - SHOULDER SURFACING
- 5 - SUBBASE
- 6 - BASE COURSE
- 7 - SURFACE COURSE
- 8 - PAVEMENT SLAB
- 9 - FORE SLOPE
- 10 - BACK SLOPE
- 11 - SHOULDER BASE
- 12 - CROWN SLOPE
- 13 - SUBGRADE
- 14 - ROADBED SOIL
- 15 - PAVEMENT STRUCTURE
- 16 - SHOULDER SLOPE
- 17 - TRAVEL LANES
- 18 - SHOULDER
- 19 - ROADWAY
- 20 - ROADBED

Note: It is always desirable to have the ditch bottom lower than the top of subgrade or the bottom of the modified layer.

RIGID OR FLEXIBLE PAVEMENT STRUCTURE

Figure 16.3A

16.3(2)

**16.4.3.2 Determination of Equivalent Base Thickness**

The equivalent base thickness (EBT) is the necessary paving thickness of a stabilized aggregate base course material to support a given wheel load. The unadjusted equivalent base thickness is determined from the Oklahoma Subgrade Index Number (OSI) of the soil (see Figure 16.4A) and the wheel load. OSI and wheel loads are combined in Figure 16.4B. Adjustments for shoulders (Table 16.4B), traffic, and climate (Figure 16.4C) are made. When this adjustment has a positive value, it is added to the unadjusted EBT, and the result is the required equivalent base thickness.

The adjustments are made by using the nomograph in Figure 16.4D and the accompanying Table 16.4C.

The Planning Division supplies the Design Division with traffic data which is used to compute the traffic factor. The traffic factor is the product of:

1. The design average daily traffic (Design ADT). It is determined by averaging the present ADT and the design year ADT.
2. The percent of heavy commercial truck traffic.
3. The number of overloaded axles per one hundred heavy commercial trucks.
4. The lane factor. This is an adjustment used to estimate the proportion of traffic in the design lane. For two-lane roads, the lane factor is 1.0, four-lane is 0.8 and for six or more lanes 0.6.

The equation is as follows:

$$\text{Design ADT} \times \% \text{ Heavy Commercial Truck Traffic} \times \underbrace{\text{Overloaded Axles/100}}_{\text{B Axles}}$$

lane factor (1.0, 0.8 or 0.6) = The traffic factor.

In addition to the factors considered above, the potential vertical rise (PVR) of the soil must be considered. Soils with high PVR values should, where possible, be eliminated from the upper portion of the subgrade. This may be accomplished by subgrade modification or, in some cases, by select grading. If they cannot be eliminated from the upper portion of the subgrade, sufficient material must be placed on top of them (to act as a restraining force) to prevent excessive movement of the soil (see Figure 16.4E). Typically, lime is estimated at 5% (by weight) and fly ash at 18% (by weight) of the modified subgrade. Subgrade soil should be estimated at 120 lbs per cubic foot. The actual quantity of lime/fly ash shall be determined in the construction phase.

See Table 16.4D for equivalent base thickness values for selected pavement materials.

**16.4.3.3 Pavement Thickness Design Steps**

1. Locate project to find functional classification of highway.
2. Use Design Year ADT to find design wheel load in Table 16.4A.
3. Use soil report and Table 16.4A to determine OSI with design wheel load. Use EBT nomograph (Figure 16.4B) to determine unadjusted EBT.
4. Locate the shoulder design in shoulder factor table (Table 16.4B) to establish the shoulder factor.
5. Use State map (Figure 16.4C) to locate climate factor for project location.

16.4(3)

6. Calculate traffic factor (design ADT x  $T_3\%$  x overload % x lane factor).
7. Use nomograph (Figure 16.4D) connecting shoulder factor to traffic factor; holding turning point, connect to climate factor. Read STC value on column "E"; it never exceeds 3.00. STC is the resultant factor from the nomograph on Figure 16.4D. It is the resultant of the shoulder, traffic and climate factors.
8. Use STC Table of EBT adjustment factors (Table 16.4C) by identifying shoulder factor column and finding nearest STC factor. Move horizontally along the row to the left-most column to find EBT adjustment.
9. Add EBT adjustment to unadjusted EBT for the design EBT.
10. The thickness of pavement layers are proposed to meet the required design EBT and meet overburden requirements (Figure 16.4E).
11. Local availability, cost of materials, and construction constraints dictate the type and thickness of pavement layers.
12. Compare to minimum design thicknesses. (Table 16.4E).

## 16.4 PAVEMENT DESIGN METHODS

### 16.4.1 General

This Section presents an overview of the two methods currently used for pavement design. These are the methodology presented in the American Association of State Highway and Transportation Officials (AASHTO) *Guide for Design of Pavement Structures* (2), hereinafter referred to as the *AASHTO Pavement Design Guide*; and the ODOT Oklahoma Subgrade Index (OSI) method (1), developed in-house.

### 16.4.2 The AASHTO Guide for the Design of Pavement Structures

The AASHTO *Pavement Design Guide* (2) represents the evolution of much nationwide research from the original AASHO pavement tests completed in the mid-1950's. Although the data input is much more extensive and calculations more complicated, available computer software makes calculations relatively simple and fast.

ODOT has a resilient modulus testing machine and furnishes that data as part of the Materials Division soils report for selected projects. Some data, however, are not the result of tests from ODOT labs, but rather values estimated from a range of values suggested by the *Pavement Design Guide* (2). There are seven data requirements common to designing either flexible or rigid pavements by the AASHTO method.

For detailed design procedures, the designer is referred to the AASHTO *Pavement Design Guide* (2).

### 16.4.3 The Oklahoma Subgrade Index (OSI) Method

The Oklahoma Subgrade Index (OSI) Method (1), developed by the Department in the early 1960's, is an empirical method for flexible pavement design. The OSI number of an individual soil is calculated from a formula that requires the liquid limit, plasticity index, and the percent of fines passing the #200 sieve. An OSI number is chosen that is representative of the soils that are found in the top 2 ft of the final subgrade within a logical extent of the project.

The OSI rigid pavement design policy is as follows:

1. Minor collectors should have 9 inches of dowel-jointed Portland Cement Concrete (PCC).
2. Major collectors should have 9 inches of continuously reinforced concrete pavement (CRCP) or 10 inches of dowel-jointed PCC.
3. High-type facilities (e.g., freeways, principal arterials) always have 10 inches of CRCP.
4. Every rigid design is placed on a 4-inch, non-erodible base. Shoulders should be plain PCC pavement tied to the travel lane. Plastic soils with the potential to swell and shrink ( $PI > 25$ ) should be stabilized or undercut and replaced.

#### 16.4.3.1 Selection of Wheel Load Criteria for Design

Wheel loads for various functional classifications are shown in Table 16.4A.

16.4(1)

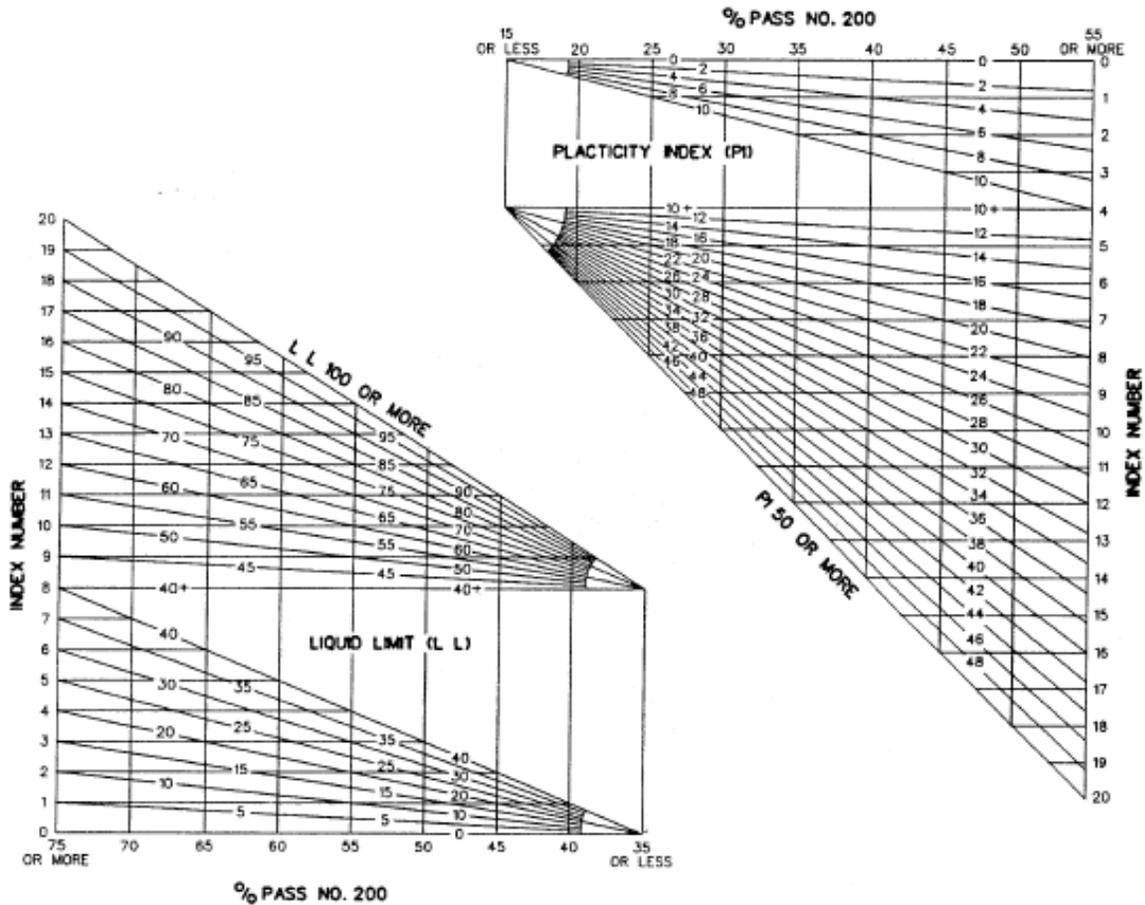
Table 16.4A

AREA	FUNCTIONAL CLASSIFICATION	DESIGN ADT RANGE (vpd)	MINIMUM DESIGN WHEEL LOAD (lbs.) (1)
RURAL	Freeways	ALL	15,000
	Principal Arterials	over 5000	15,000
		0 to 5000	12,000
	Other Arterials	over 2500	12,000
		0 to 2500	9,000
Collectors (2)	over 1200	9,000	
	0 to 1200	7,000	
Local Roads (2)	ALL	7,000	
SUBURBAN or URBAN	Freeways	ALL	15,000
	Principal Arterials	ALL	12,000
	Other Arterials	ALL	9,000
	Collectors (2)	ALL	9,000
	Local Streets (2)	ALL	7,000

Notes:

1. For facilities with heavy truck traffic ( $T_3 \geq 25\%$ ), use a design wheel load of 15,000 pounds.
2. For pavement design for county road projects administered by the Local Government Division, see Reference (6).

16.4(2)



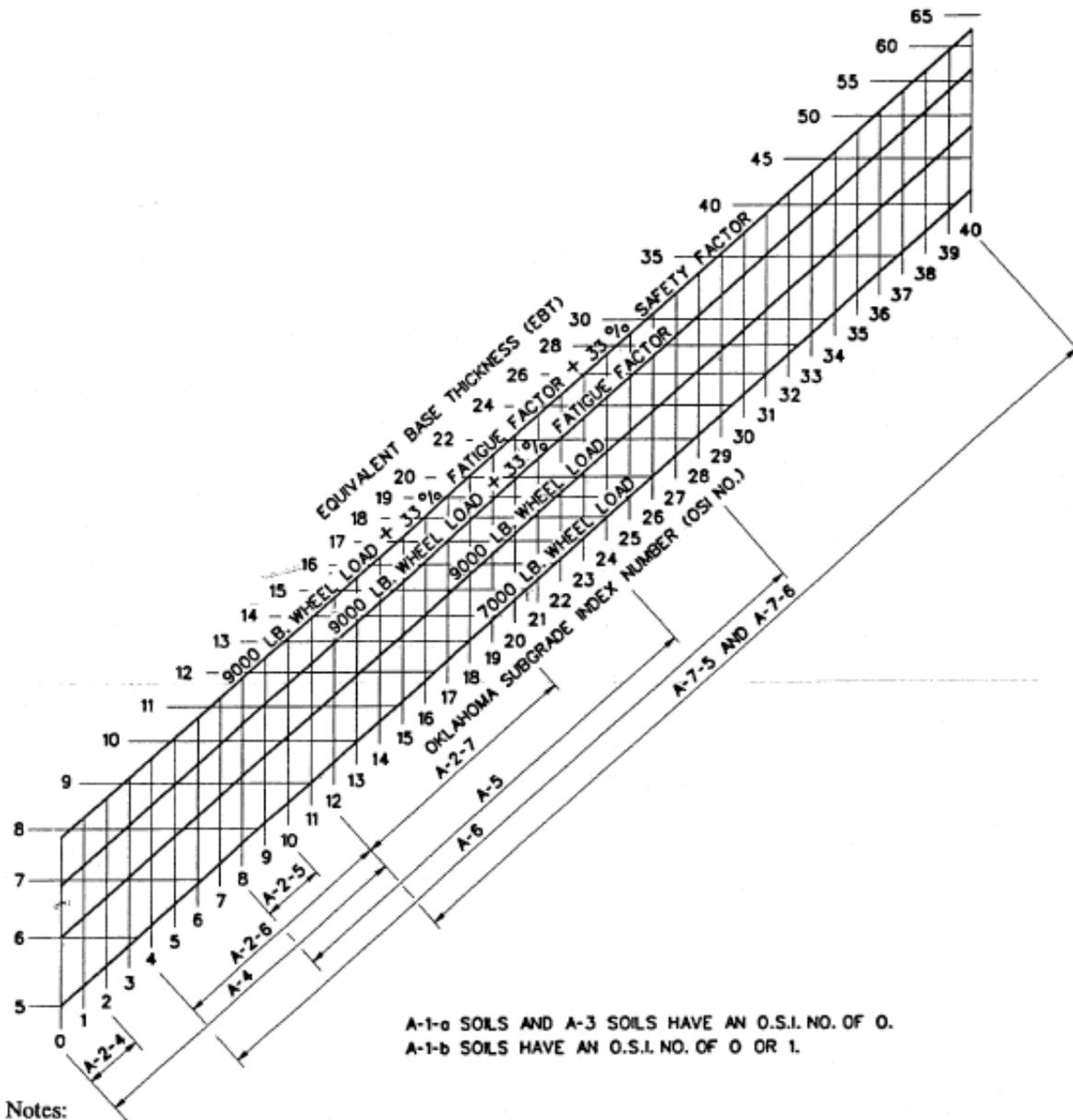
To Use This Chart

1. Determine the percent of the soil passing the #200 sieve, and the L.L. and P.I. of the soil.
2. On the L.L. chart, find the % passing #200 along the bottom of the chart and move vertically up to the L.L. (sloping) line.
3. From the intersection of these lines, move horizontally to the left to determine the index number.
4. Follow a similar procedure (reading down and right) and determine the index number from the P.I. chart.
5. The sum of the index numbers determined in Step #'s 3 & 4 is the Oklahoma Subgrade Index (O.S.I.) Number.

CHART FOR DETERMINING OSI NUMBER

Figure 16.4A

16.4(5)



Notes:

1. Determine the O.S.I. number of the soil from the O.S.I. number chart (Figure 16.4A).
2. Find the O.S.I. number along the bottom of this chart and follow the vertical line up to the appropriate wheel load line.
3. From the intersection of these lines, move horizontally to the left to determine the required equivalent base thickness.

**NOMOGRAPH FOR DETERMINING EQUIVALENT BASE THICKNESS (EBT)  
(Unadjusted)**

Figure 16.4B

Table 16.4B

TABLE FOR DETERMINING SHOULDER FACTOR

SHOULDER DATA			SHOULDER FACTOR
BASE MATERIAL	SURFACING TYPE	WIDTH (ft)	
Suitable soil	None	1-2	0
Suitable soil	4" gravel	1-2	1
Soil Asphalt	None or single bit.	1-2	2
Stabilized aggregate	None	1-2	2
Stabilized aggregate	Single bit.	1-2	3
Suitable soil	None	3-5	5
Suitable soil	4" gravel	3-5	7
Suitable soil	None	6+	10
Stabilized aggregate	None	3-5	13
Suitable soil	4" gravel	6+	14
Soil asphalt	None or single bit.	3-5	14
Stabilized aggregate	Single bit.	3-5	15
Stabilized aggregate	None	6+	18
Soil asphalt	None or single bit.	6+	19
Stabilized aggregate	Single bit.	6+	20
PCC curb and gutter			20

16.4(7)



Table 16.4C

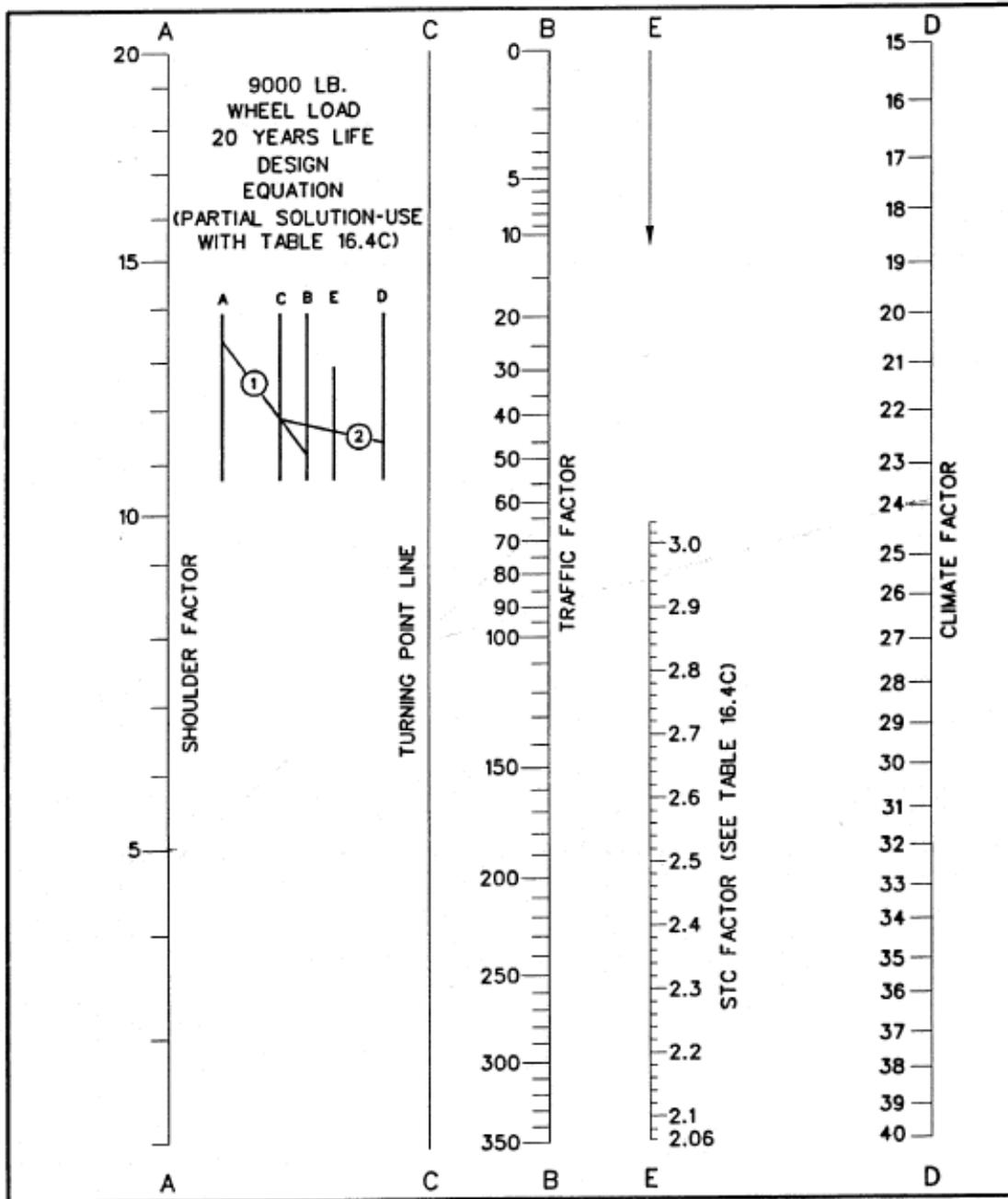
STC TABLE FOR DETERMINING EBT ADJUSTMENT FACTOR

EBT ADJUSTMENT FACTOR (1)	SHOULDER FACTOR (from Table 16.4B)										
	2	3	4	5	6	7	8	9	10		
+1	2.948	2.950	2.952	2.954	2.956	2.958	2.961	2.962	2.964		STC Factor (from Fig. 16.4D)
+2	2.898	2.902	2.906	2.909	2.913	2.917	2.921	2.925	2.929		
+3	2.844	2.850	2.856	2.862	2.868	2.874	2.880	2.886	2.892		
+4	2.788	2.796	2.803	2.811	2.819	2.827	2.835	2.843	2.850		
+5	2.727	2.737	2.747	2.757	2.766	2.776	2.786	2.796	2.806		
+6	2.662	2.674	2.686	2.697	2.709	2.721	2.733	2.744	2.756		
+7	2.592	2.606	2.619	2.633	2.647	2.660	2.674	2.688	2.702		
+8	2.516	2.531	2.547	2.563	2.578	2.594	2.610	2.626	2.641		
+9	2.433	2.450	2.468	2.486	2.503	2.521	2.539	2.556	2.574		
+10	2.341	2.361	2.380	2.400	2.420	2.439	2.459	2.478	2.498		
+11	2.240	2.261	2.283	2.305	2.366	2.348	2.369	2.391	2.412		
+12	2.126	2.150	2.173	2.197	2.220	2.244	2.267	2.291	2.314		
+13	1.996	2.022	2.047	2.073	2.098	2.124	2.149	2.175	2.200		
+14				1.928	1.956	1.983	2.011	2.038	2.066		

EBT ADJUSTMENT FACTOR (1)	SHOULDER FACTOR (from Table 16.4B)											
	11	12	13	14	15	16	17	18	19	20		
+1	2.966	2.967	2.969	2.971	2.973	2.975	2.977	2.979	2.981	2.983		STC Factor (from Fig. 16.4D)
+2	2.933	2.937	2.941	2.945	2.949	2.953	2.957	2.960	2.964	2.968		
+3	2.897	2.903	2.909	2.915	2.921	2.927	2.933	2.939	2.944	2.950		
+4	2.858	2.866	2.874	2.882	2.890	2.898	2.905	2.913	2.921	2.929		
+5	2.815	2.825	2.835	2.845	2.855	2.864	2.874	2.884	2.894	2.904		
+6	2.768	2.780	2.791	2.803	2.815	2.827	2.838	2.850	2.862	2.874		
+7	2.715	2.729	2.743	2.757	2.770	2.784	2.798	2.811	2.825	2.839		
+8	2.657	2.673	2.688	2.704	2.720	2.735	2.751	2.767	2.782	2.798		
+9	2.591	2.609	2.627	2.644	2.662	2.680	2.697	2.715	2.733	2.750		
+10	2.518	2.537	2.557	2.576	2.596	2.616	2.635	2.655	2.674	2.694		
+11	2.434	2.455	2.477	2.499	2.520	2.542	2.563	2.585	2.606	2.628		
+12	2.338	2.361	2.385	2.408	2.432	2.455	2.479	2.502	2.526	2.549		
+13	2.226	2.251	2.277	2.302	2.328	2.353	2.379	2.404	2.430	2.455		
+14	2.093	2.121	2.148	2.175	2.203	2.230	2.258	2.285	2.313	2.340		
+15	1.932	1.962	1.991	2.021	2.050	2.079	2.109	2.138	2.168	2.197		
+16						1.888	1.919	1.950	1.982	2.013		

(1) To be added to the unadjusted EBT as derived in Section 16.4.3.2 for Design EBT.

16.4(9)

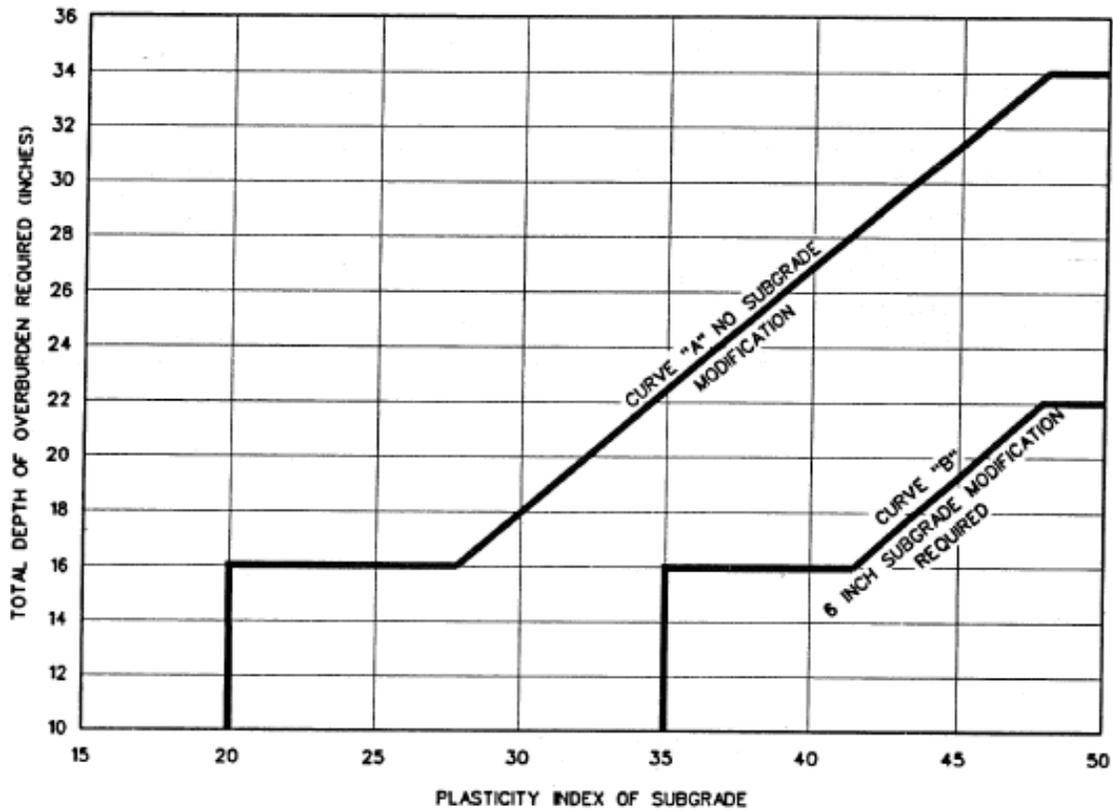


- Notes:
1. See Table 16.4C.
  2. STC Factor is the product of the shoulder, traffic and climate factors.

NOMOGRAPH FOR DETERMINATION OF STC FACTOR

Figure 16.4D

16.4(10)



Notes:

1. From PI of subgrade, determine total overburden required. Subtract total paving thickness from total overburden to determine thickness of additional material required to prevent damage.
2. CURVE "A" - Depth of low volume change material needed without subgrade modification.
3. CURVE "B" - Depth of low volume change material if the top 6 inches of the subgrade is modified.

OVERBURDEN CHART

Figure 16.4E

16.4(11)

Table 16.4D

EQUIVALENT EBT VALUES

Thickness & Material	EBT Value
1" Select Borrow	½ inch
1" Fly Ash Modified/Lime Treated Subgrade	¾ inch
1" Aggregate Base	1 inch
1" Open-Graded Bituminous Base	1 inch
Reinforcing Fabric	1 inch
1" Hot-Mix, Hot-Laid Asphaltic Concrete (AC)	1½ inch

Table 16.4E

MINIMUM DESIGN THICKNESS  
(Flexible Pavements)

TYPE OF FACILITY	MINIMUM DESIGNS
Interstate/High-Volume Primary	Surface: 4½" of A.C. Equivalent Base Course: 8"
Other Primary	Equivalent Base Course: 8"
Secondary/Local	Equivalent Base Course: 6"

16.4(12)

#### 16.4.3.4 Widening and Resurfacing

Where an existing pavement is to be widened and resurfaced, the thickness design for flexible pavement is based on the same factors as the OSI method contained herein.

In trenched sections, a minimum of six inches of the subgrade should be modified with lime or fly ash for soils with a plasticity index of 25 or more.

#### 16.4.4 Other Design Considerations

Special soil conditions or soil-moisture conditions, either known to exist or found during the soil surveys or during construction, are generally minimized by one or more of the following methods:

1. use of drainable base,
2. subgrade modification,
3. increased thickness of base and/or subbase courses,
4. undercutting and backfilling of unstable areas, and/or
5. use of pipe underdrains.

When special situations arise, the engineers involved in design and construction of the project should meet and discuss the problems to determine a feasible solution.

## 16.5 EXISTING PAVEMENTS

The designer is presented with a different set of problems in seeking solutions for pavements already in service. He must inspect and evaluate the pavement to quantify the following:

1. condition assessment (serviceability rating),
2. rate of general deterioration,
3. rate of specific deterioration,
4. suitability of the pavement structure to continue to serve as designed,
5. suitability of the pavement structure to serve as a base course, and/or
6. unsuitability as a pavement structure (must be removed and rebuilt).

Answers to these questions will not be a direct output from the initial assessment. However, a rating scheme (preferably a part of a pavement management system) will over time yield data which can then be used to determine specific action plans for a site or a project rehabilitation.

### 16.5.1 Testing Methods

The pavement condition analysis will normally use visual observation and physical testing to gather data. An assessment form, augmented with photographs, which allow team members to give closely correlated opinions is recommended.

Physical testing falls into one of two categories:

1. destructive testing, or
2. non-destructive testing.

More discussion on the various tests is presented in the sections on asphaltic concrete (AC) surface distresses and Portland Cement Concrete (PCC) surface distresses. The correct classification of pavement type is important. The analysis must determine any previous maintenance and/or rehabilitation on the existing pavement to correctly classify the pavement structure. For example, a PCC pavement may have been routinely overlaid with a new AC wearing surface. Even if some or all the PCC pavement has been repaired, the designer may encounter the existing pavement at a point where the serviceability index is approaching terminal.

Both the PCC underlying pavement and AC overlay may be distressed. Classification of this combination pavement will be critical to the proper decision-making process being used for rehabilitation.

Existing pavements may be:

3. Portland Cement Concrete (PCC) pavement,
4. asphaltic concrete (AC) pavement, or
5. a combination.

Field testing methods include:

6. Benkleman Beam deflections;
7. falling weight deflectometer (FWD);
8. rut depth measurement;
9. coring pavement;
10. measurement of slab faulting;
11. slab section removal, including:
  - a. logical slab section (between joints), or
  - b. slab slice (in or over distress);
12. soil sample for subgrade analysis;
13. patch destruction for analysis;
14. removal of large extent of slab overlay to:

16.5(1)

- a. check for underslab cracks,
- b. check for joint repairs, and/or
- c. check for overlay bond and quality of AC overlay; and

15. shoulder material (and subgrade) analysis.

With methods requiring removal of cores, slabs or overlays, the quality of repairs to the pavement are usually made, dependent upon the timing and estimated type of rehabilitation anticipated for the pavement under assessment.

Requests for field and/or laboratory analyses are usually made as a result of the scoping process, where the scoping team has had an opportunity to make pertinent input. A strategy for gathering samples and for the analysis process is also developed at this time.

The surface condition survey should have been completed or should be performed in the same time frame. The Materials Division crew should be guided to suspected hidden conditions or likely locations which may reveal either the extent or definite distress types or causes.

16.5.2 Distress Types

When making a surface condition survey, the designer may encounter recurrent distress conditions. Guidance on the classification of distress types may be found in Reference (4).

16.5.2.1 **Asphaltic Concrete Surfaces**

Distress types include:

- 1. crack types:
  - a. alligator (fatigue) cracks,
  - b. block cracks,
  - c. edge cracking,

- d. longitudinal cracking,
- e. reflection cracks at joints, and
- f. transverse cracking;

2. patching and potholes:

- a. patch with patch deterioration, and
- b. potholes;

3. surface deformation:

- a. rutting,
- b. shoving, and
- c. corrugations;

4. surface distress or defects:

- a. bleeding,
- b. polished aggregates,
- c. raveling and weathering,
- d. delamination (separation of layers);

5. miscellaneous distresses:

- a. lane-to-shoulder drop-off,
- b. lane-to-shoulder separation, and
- c. water bleeding and pumping.

16.5.2.2 **Portland Cement Concrete Surfaces**

Distress types include:

1. jointed PCC surfaces:

- a. cracking:
  - 1) corner breaks,
  - 2) durability "D" cracking,
  - 3) longitudinal cracking, and
  - 4) transverse cracking;
- b. joint distress or deficiencies:

16.5(2)

- 1) seal damage,
- 2) spalling at joints,
- 3) load-transfer device failures;
- c. surface defects:
  - 1) map cracking and scaling,
  - 2) polished aggregates, and
  - 3) popouts;
- d. miscellaneous distresses:
  - 1) blow-ups,
  - 2) faulting at transverse joints (or cracks),
  - 3) lane-to-shoulder dropoff,
  - 4) lane-to-shoulder separation,
  - 5) patch and patch deterioration,
  - 6) water (and fines) pumping; and
- 2. continuously reinforced PCC surfaces:
  - a. cracking:
    - 1) durability "D" cracking,
    - 2) longitudinal cracking, and
    - 3) abnormal transverse cracking;
  - b. surface defects:
    - 1) map cracking and scaling,
    - 2) polished aggregate, and
    - 3) popouts;
  - c. miscellaneous distresses:
    - 1) blowups,
    - 2) construction joint deterioration,
    - 3) lane-to-shoulder dropoff,
    - 4) lane-to-shoulder separation,
    - 5) terminal end joint distress,
    - 6) patch deterioration,
    - 7) punch outs,
    - 8) spalling,

- 9) pumping, and
- 10) bridge end distress.

When the distress types have been cataloged and tied to a lane location map, the actual sampling may be finished. With observation, photo logging, test results and engineering experience, a strategy for rehabilitation can be developed.

### 16.5.3 Rehabilitation Methods

The term rehabilitation requires clarification by listing some methods and types which will be eligible for all types of pavement.

#### 16.5.3.1 Rehabilitation Methods for Asphaltic Concrete Pavements

Rehabilitation methods include:

- 1. crack sealing,
- 2. full-depth patching or repair,
- 3. partial-depth patching or repair,
- 4. subdrainage,
- 5. cold milling,
- 6. stress-absorbing membranes,
- 7. asphaltic concrete overlay,
- 8. open-graded surface friction course,
- 9. fog sealing (shoulders),
- 10. slurry sealing/microsurfacing (shoulders and pavement), and
- 11. chip and seal.

16.5(3)

**16.53.2 Rehabilitation Methods for PCC**

Rehabilitation methods include:

1. crack rehabilitation:
  - a. reservoir preparation, and
  - b. cleaning and sealing;
2. joint sealing;
3. full-depth patching or repair;
4. partial-depth patching/repair;
5. undersealing;
6. pressure-relief joints;
7. subdrainage (edge drains - horizontal drains);
8. grinding and/or milling;
9. concrete grooving;
10. overlays — PCC - bonded;
11. overlays — PCC - unbonded;
12. asphaltic concrete (AC) overlay;
13. cracking and seating plain PCC;
14. breaking and seating (reinforced PCC);
15. rubblizing; and
16. in-lay (reconstruct lanes inside existing shoulders).

16.5(4)

## **16.5.3.2 Rehabilitation Methods for PCC**

Rehabilitation methods include:

1. crack rehabilitation:
  - a. reservoir preparation, and
  - b. cleaning and sealing;
2. joint sealing;
3. full-depth patching or repair;
4. partial-depth patching/repair;
5. undersealing;
6. pressure-relief joints;
7. subdrainage (edge drains - horizontal drains);
8. grinding and/or milling;
9. concrete grooving;
10. overlays — PCC - bonded;
11. overlays — PCC - unbonded;
12. asphaltic concrete (AC) overlay;
13. cracking and seating plain PCC;
14. breaking and seating (reinforced PCC);
15. rubblizing; and
16. in-lay (reconstruct lanes inside existing shoulders).

## 16.6 OVERLAYS

Overlays to restore desirable wet weather friction characteristics, to re-establish a quality ride, and/or to increase the structural adequacy of a pavement are often a prudent solution. Repair and rehabilitation of the distress items prior to the overlay process is recommended when cost effective.

The evaluation process to establish the cost-effective ranking of a specific rehabilitation method is a prime ingredient in the success of an overlay. A slurry seal to rejuvenate the surface and reseal fatigue cracks in an asphaltic pavement may be less cost-effective (based upon a life-cycle cost analysis) than a stress membrane plus overlay.

Overlays generally should not increase the total thickness of AC wearing course layers to more than three inches. Two inches of AC wearing course is generally the maximum on routes with higher truck traffic counts, such as the Interstate system or high-volume expressways. Excessively thick AC wearing courses may tend to shove and rut.

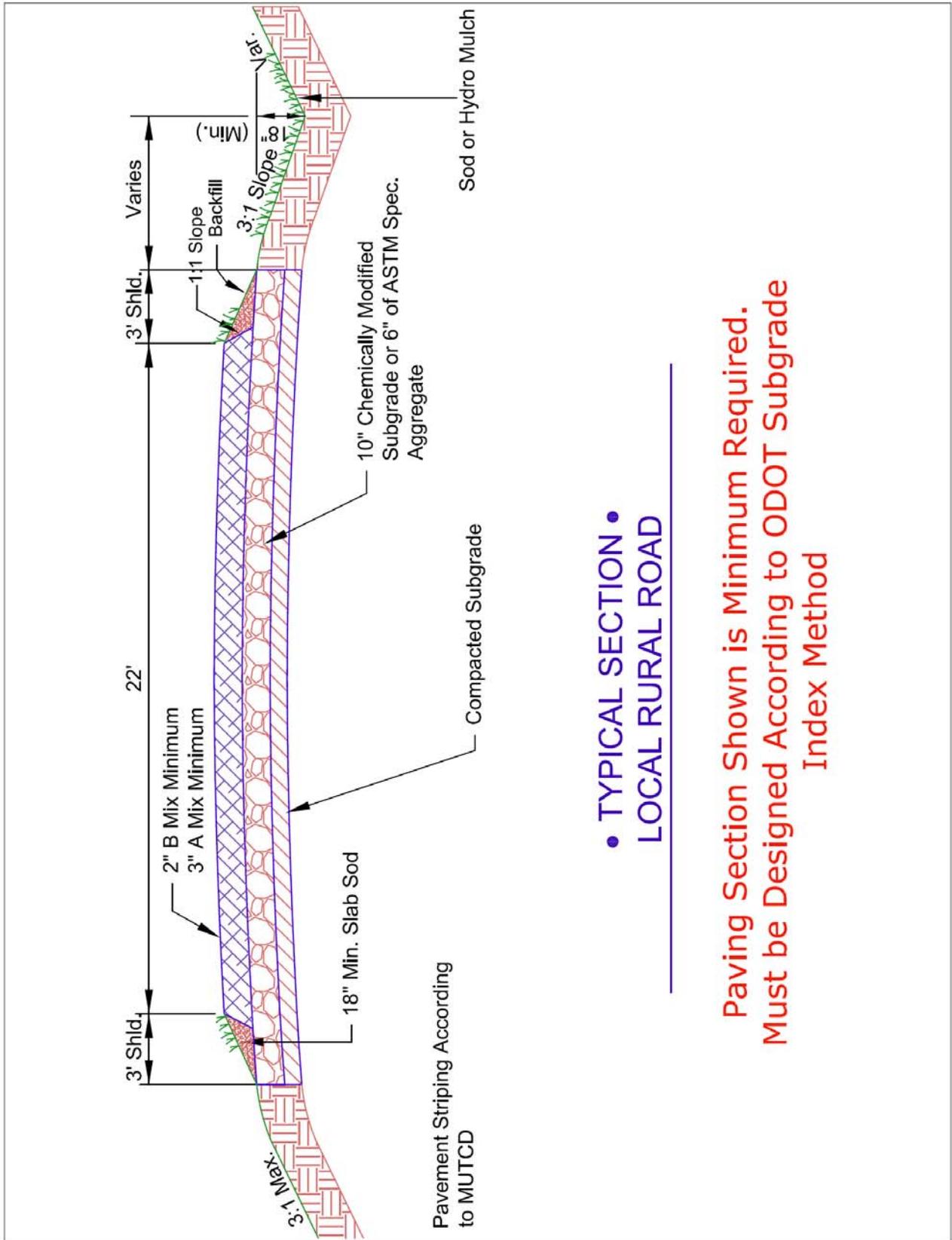
16.6(1)

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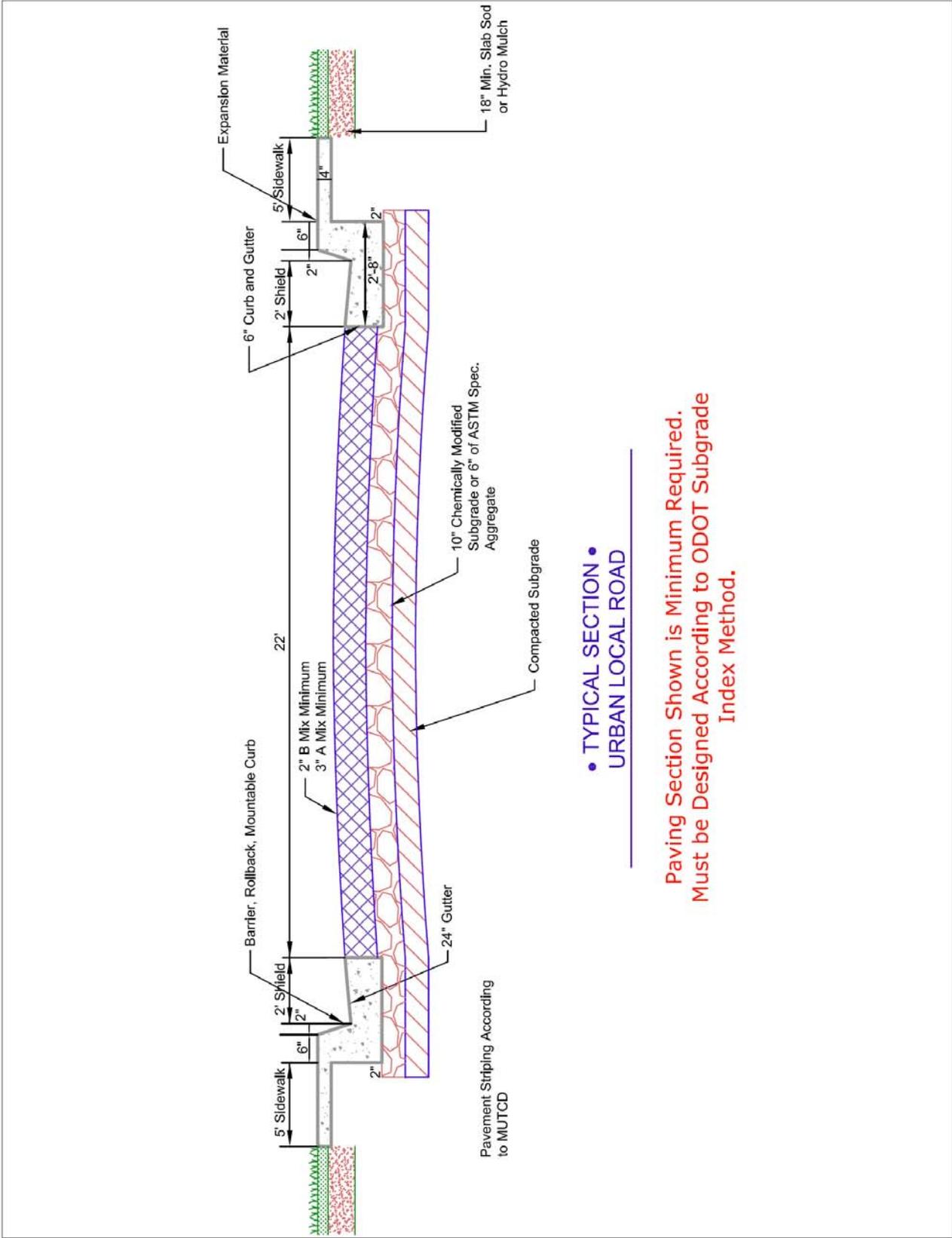
**APPENDIX D**

**OKLAHOMA COUNTY  
TYPICAL PAVING SECTIONS**

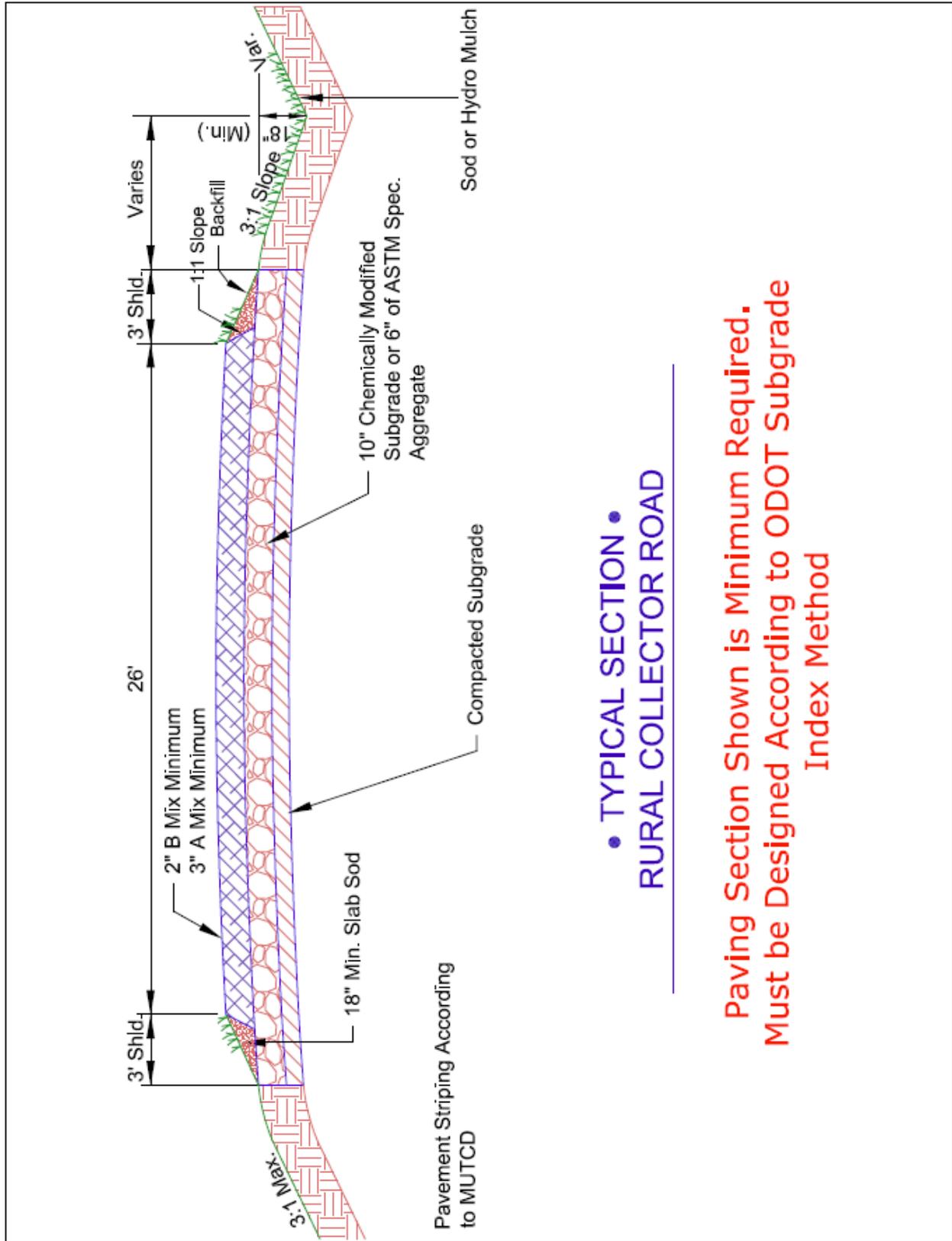
- D.1 Typical Section: Local Rural Road**
- D.2 Typical Section: Local Urban Road**
- D.3 Typical Section: Collector Rural Road**
- D.4 Typical Section: Collector Urban Road**
- D. 5 Typical Section: Industrial Classified Road**
- D.6 Typical Section: Section Line Road (2 Lane Arterial)**
- D.7 Typical Section: Section Line Road (4 Lane Arterial)**



D.1 Typical Section: Local Rural Road



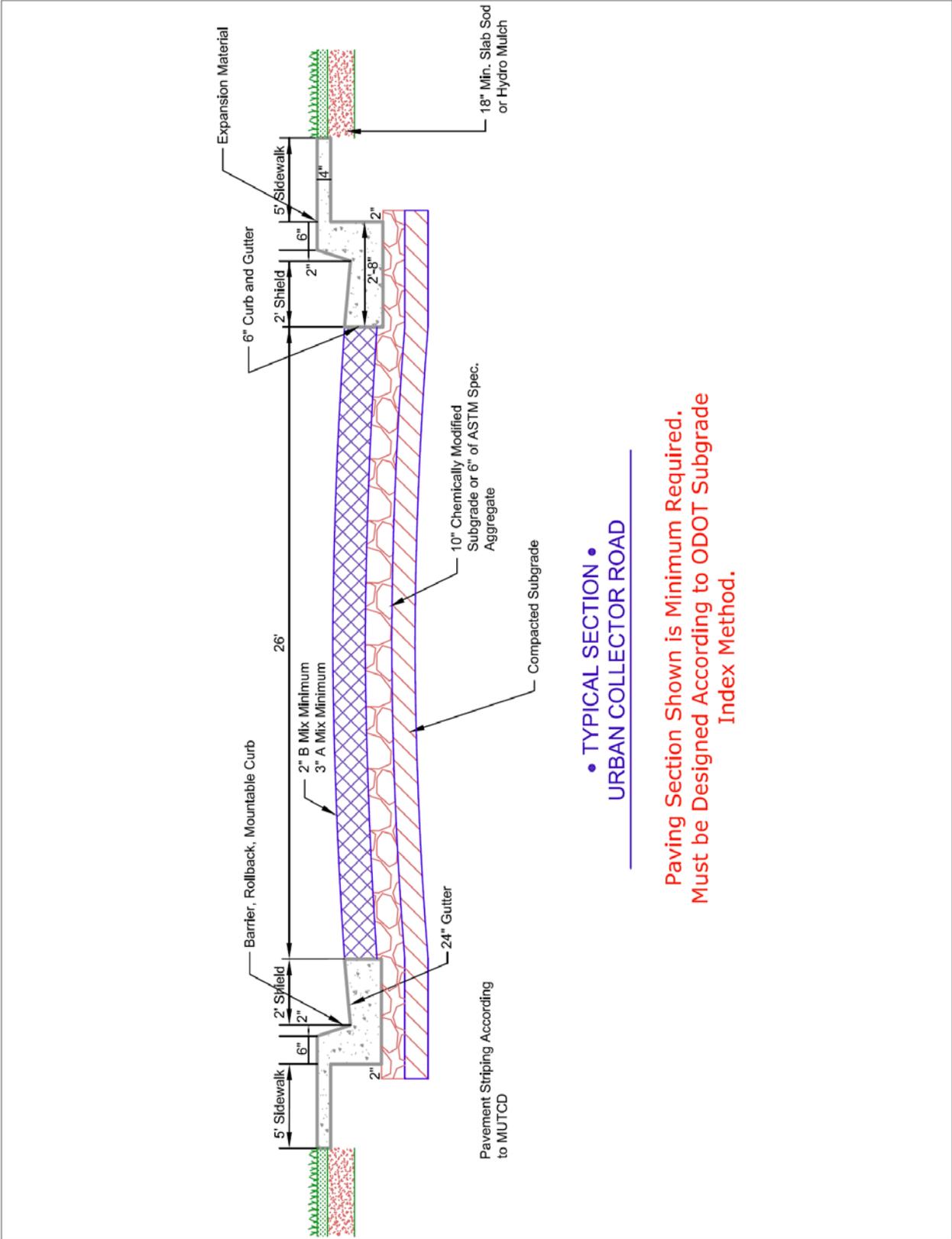
D.2 Typical Section: Local Urban Road



**• TYPICAL SECTION •**  
**RURAL COLLECTOR ROAD**

**Paving Section Shown is Minimum Required.  
 Must be Designed According to ODOT Subgrade  
 Index Method**

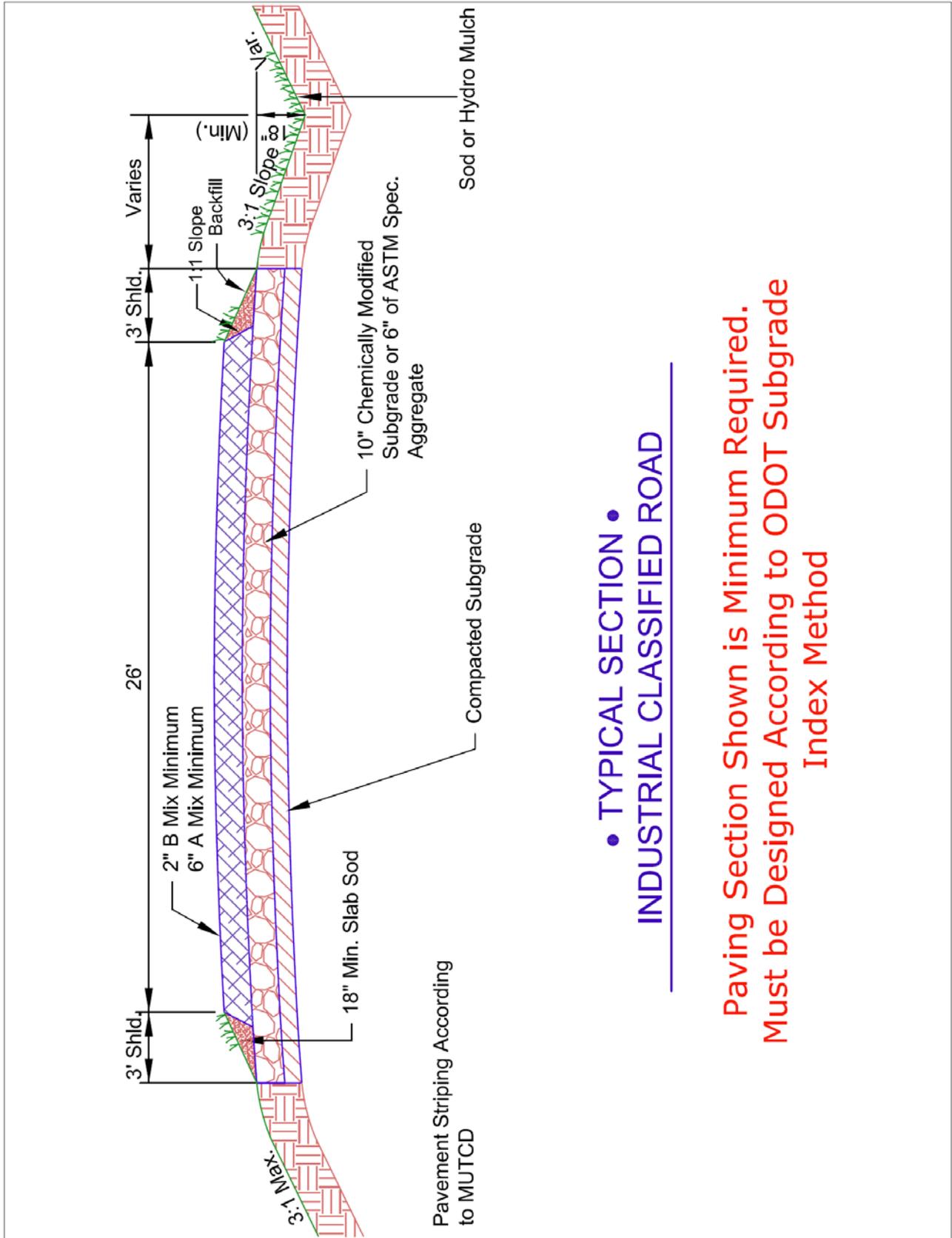
D.3 Typical Section: Rural Collector Road



• TYPICAL SECTION •  
URBAN COLLECTOR ROAD

Paving Section Shown is Minimum Required.  
Must be Designed According to ODOT Subgrade  
Index Method.

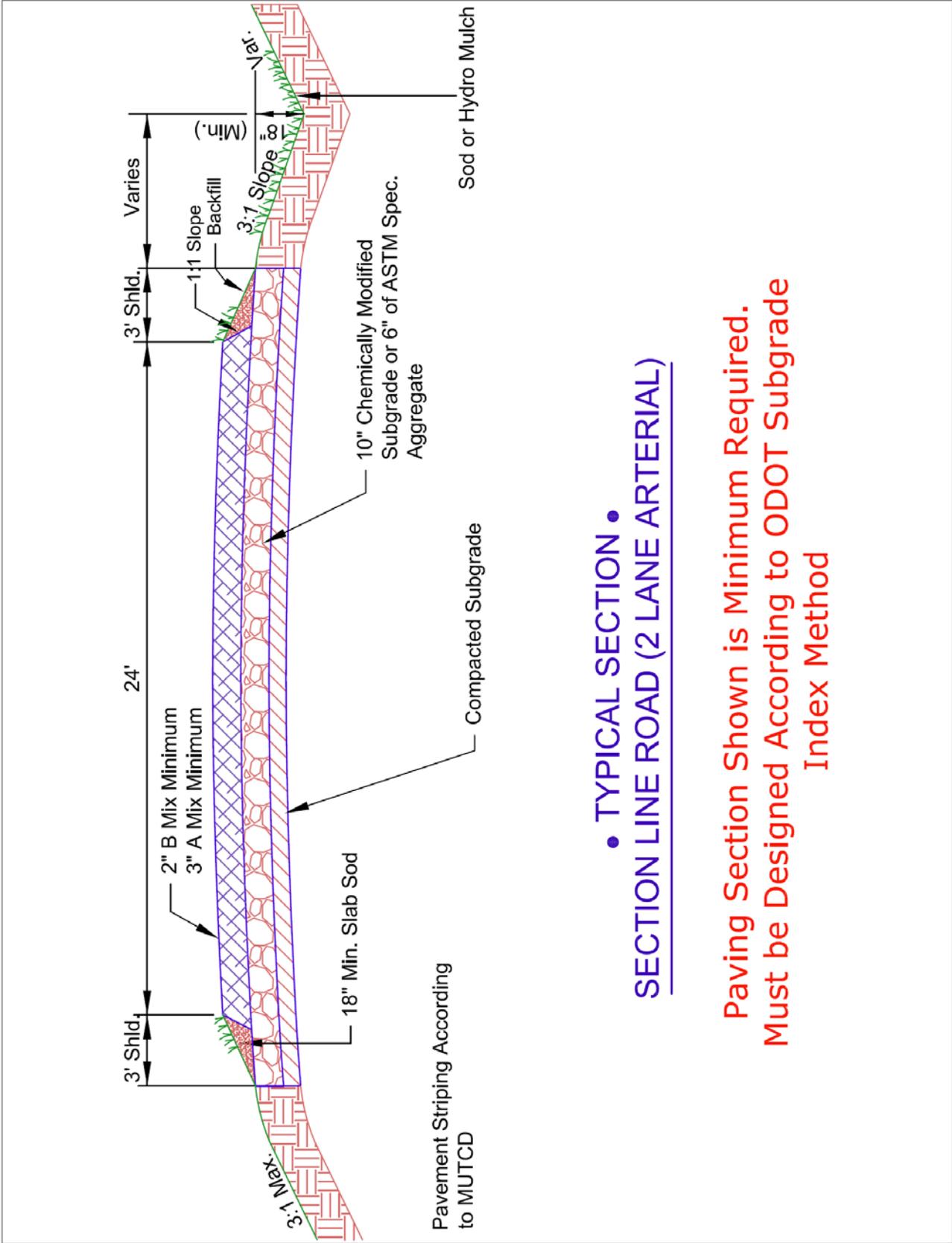
D.4 Typical Section: Urban Collector Road



• TYPICAL SECTION •  
INDUSTRIAL CLASSIFIED ROAD

Paving Section Shown is Minimum Required.  
 Must be Designed According to ODOT Subgrade  
 Index Method

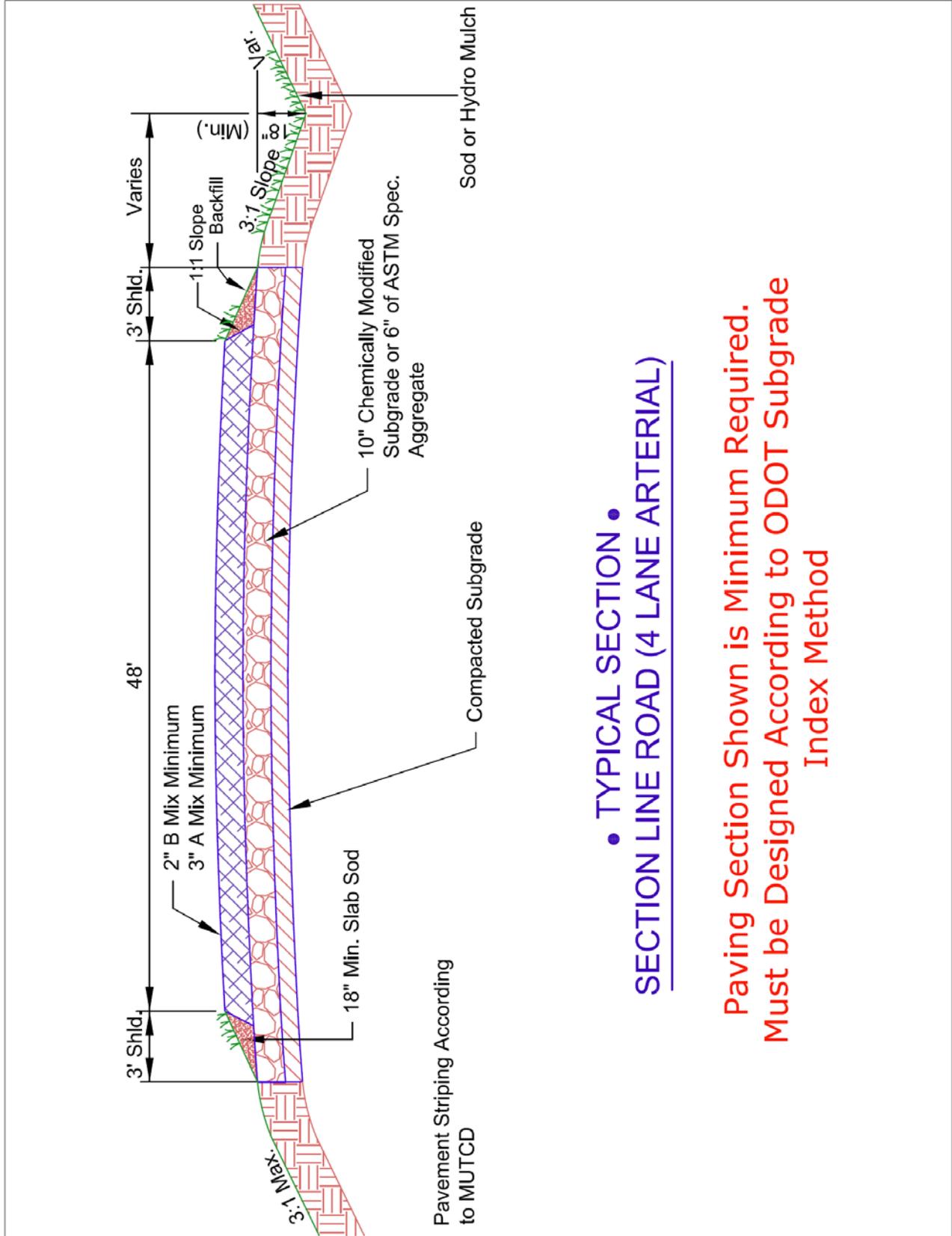
D.5 Typical Section: Industrial Classified Road



• TYPICAL SECTION •  
SECTION LINE ROAD (2 LANE ARTERIAL)

Paving Section Shown is Minimum Required.  
 Must be Designed According to ODOT Subgrade Index Method

D.6 Typical Section: Section Line Road (2 Lane Arterial)



**TYPICAL SECTION •  
SECTION LINE ROAD (4 LANE ARTERIAL)**

**Paving Section Shown is Minimum Required.  
Must be Designed According to ODOT Subgrade  
Index Method**

**D.7 Typical Section: Section Line Road (4 Lane Arterial)**

**APPENDIX E**

**TRAFFIC IMPACT ANALYSIS**

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# TRAFFIC IMPACT ANALYSIS

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- 2.2 Definitions ..... TIA 6**
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## **SECTION I - TRAFFIC IMPACT ANALYSIS**

All development, whether residential, commercial, industrial, or public generates traffic. Understanding the demands placed on a community's street and roadway network by new and proposed development is an important measurement in assessing the overall impacts of development. Since traffic congestion is typically the result of added traffic on an already overburdened system, new development often generates enough traffic to create congestion which in turn requires a community to invest more capital into the street and roadway network. Typical roadway improvements necessary may include new roads, traffic signals to new or existing roads, new turn lanes on existing roads, or street widening to existing roads for added capacity. Other problems that may also result from overburdened roadways include economic costs due to delayed travel times, air pollution, and increased accidents. Increased traffic typically impacts multiple roadways. As one corridor becomes congested, drivers may use other roadways not necessarily intended for through traffic. Understanding traffic impacts becomes even more important as budgets for public facility and infrastructure improvements become increasingly strained.

- Traffic impact studies help communities to:
- Forecast additional traffic associated with new development,
- Determine the improvements that are necessary to accommodate the new development,
- Reduce the negative impacts created by developments by helping to ensure that the transportation network can accommodate the added traffic,
- Allow the community to assess the impacts that a proposed development may have; identify potential problems with the proposed development (i.e. evaluate the number and location of access points),
- Assist communities in land use decision making; relate land use decisions with traffic conditions,
- Protect the substantial community investment in the street system,
- Assist in allocating scarce resources to areas which need improvements,
- Help to ensure safe and reasonable traffic conditions on streets after the development is complete,
- Update available traffic data,
- Provide input for metropolitan transportation planning efforts (Association of Central Oklahoma Governments, ACOG and the Oklahoma Department of Transportation, ODOT).

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A Traffic Impact Analysis (TIA) is a study that assesses the effects that a particular development's traffic will have on the surrounding street and roadway network. A TIA may vary in range of detail and complexity depending on the type, size, and location of the development. A traffic impact study should be an essential part of any development review process to assist planning and engineering staff as well as the Planning Commission in making land use decisions where the proposal may have a significant impact on traffic and transportation corridors. Traffic impact studies may also be used to help evaluate if the scale of development is appropriate for a particular site and what improvements may be necessary, on or off the site, to provide safe and efficient access and traffic flow.

Traffic impact studies should accompany developments that have the potential to impact the transportation system. These studies can be used to help evaluate whether the development is appropriate for a site and what type of transportation improvements may be necessary.

A traffic study provided by the developer may be required subject to the conditions outlined in the following Traffic Impact Analysis guidelines.

## SECTION II - TIA GUIDELINES

### **2.1 General**

Traffic Impact Analysis (TIA) is a tool that has historically been utilized to evaluate the interaction between existing transportation infrastructure and proposed land development projects. A TIA provides a large amount of information that can be used for a number of purposes, including documenting the growth of an area, assisting with planning activities, assessing immediate and long term needs relative to infrastructure improvements, etc. Historically, these documents have been applied in a variety of ways in order to maximize the efficiency and safety associated with ingress and egress to property.

The following guidelines are intended to provide an understanding of the process through which a TIA is developed and submitted to Oklahoma County, as well as an understanding of the technical requirements of the deliverables to be provided.

#### **2.1.1 Criteria**

Criteria to determine when a TIA will be required:

1. **Schools:** New school construction,
2. **Variance:** Requests for variances and/or deviations from Oklahoma County development requirements including zoning and subdivision requirements when development meets any other criteria listed,
3. **Re-Zoning or Building Permit Application:** All developments located within 500 feet of the intersection of two or more boulevards, freeway frontage roads, arterials, or major collectors with an overall developable land area in excess of 5 acres,
4. **Re-Zoning or Building Permit Application:** Commercial Shopping centers or Industrial developments with GLA in excess of 100,000 square feet,
5. **Re-Zoning:** For a rezoning application that is projected to create 100 or more residential lots,
6. **Subdivision:** For all preliminary plats or final plats if the property has previously been rezoned for the proposed use and no traffic impact study has been conducted in the past two years and meet any of the criteria outlined in 2.1.1.1-5 above.

The preparation of a TIA is strongly encouraged for all midsize and large developments. A TIA may be requested by the Oklahoma County Planning or Engineering staff as a condition for review and/or acceptance if it is determined that a development has the potential to impact transportation facilities and/or has the potential to have an impact on traffic patterns.

### **2.1.2 Goals**

The goals of a TIA are as indicated below:

- To identify any and all potential adverse impacts to the existing transportation system and to proposed developments.
- To assist public and private sector entities in identifying and resolving issues related to the location of driveways, traffic signals, and other transportation facilities that are requested but do not conform to the Oklahoma County Development Guidelines.
- To assist public and private sector entities with long-term planning such that the extension and growth of the transportation infrastructure may occur in a manner that is comprehensive in nature and supportive of the public good.

### **2.2 Definitions**

**Arterial Roadway or Street** - A public street; a section-line roadway. The primary function of arterial streets is to provide a high degree of vehicle mobility. Arterials provide for distribution of through traffic to and from the collector system.

**Collector** - Collectors streets provide access and service to land, circulate traffic between land uses, and collect and distribute traffic between arterial streets and local streets.

**Boundary Street** - A public street that is adjacent to and/or abutting one or more sides of the proposed site.

**Build-out Year** - The proposed year of completion of the land development when its capacity for attracting and producing traffic is maximized.

**Intermediate Construction Phase** - An intermediate phase of construction associated with a multiple-phase development project. There may be several intermediate construction phases that precede the final construction phase. The final construction phase is completed in the build-out year.

**Multi-Phase Development Project** - Any land development project that is developed with more than a single phase of construction.

**Peak Hour Trips (PHTs)** - The number of vehicular trips generated by and attracted to the proposed development during its heaviest hour of use.

**Projected Traffic** - The number of vehicular trips that is projected to exist at a given point in time on an existing or proposed street.

**Site-Generated Traffic** - Vehicular trips attracted to or produced by the proposed development site.

**Study Area Boundary** - The limits of the area for which the analysis is to be conducted. This area shall be determined by the consultant conducting the study (hereafter referred to as the traffic consultant) and approved by the County Planning Director prior to the start of the study.

**Trip Generation Summary** - A table summarizing the trip generation characteristics of the development. Selection and development of appropriate trip generation rates and procedures shall be coordinated with Oklahoma County. Institute of Transportation Engineers trip rates will be used unless a better source is identified and is deemed acceptable to the County Planning Director.

### **2.3 Preliminary Scoping Meeting**

In instances where a TIA is submitted, the study must be completed in sufficient detail to allow the County Planning Director or his/her designee to evaluate the overall impact of the development on boundary facilities. In an effort to minimize the deliverables required and still insure that the document is sufficiently comprehensive, the traffic consultant shall be responsible for coordinating a preliminary scoping meeting with the County Planning Director or his/her designee.

The purpose of the preliminary scoping meeting shall be to establish the content, exhibits, magnitude of details, and format requirements for the TIA.

### **2.4 Study Area**

The study area, scope of the TIA, the trip generation rates to be utilized for the study, and all requirements identified as necessary to provide a complete, accurate and useful study shall be determined at the preliminary scoping meeting. Additionally, these elements shall also be verified at the time of the preliminary scoping meeting. Any variances from the requirements identified below must be approved by the County Planning Director in writing prior to preparation of the study.

The study boundary will be established based on the size of the proposed development, the projected Peak Hour Trips (PHTs), and the application of sound engineering judgment. In general, the study area will typically include an area of no less than ¼ mile in radius and no greater than a radius of one (1) mile from the boundary of the proposed development.

### **2.5 Multi-Phase Development Projects**

The requirements for a TIA for multi-phase residential projects shall be in accordance with the requirements set forth in these guidelines, and shall be treated as one development with information included concerning phased build-out. The TIA and general plans submitted to the County Planning Director shall be distributed to the following:

- Oklahoma County Engineering Department.
- Other Departments or public entities that have jurisdiction over uses that may be impacted by increased traffic such as the parks or schools.

The distribution of these submittals shall be for informational purposes only and requires no formal response. The intent of this action is to identify pending developments to appropriate Oklahoma County personnel as early as possible, and thereby enhance the ability of the County to identify potential concerns with developments at an early stage in the process.

### **2.6 Technical Criteria and Requirements**

Technical requirements have been established to standardize the format by which TIAs are prepared and to insure that the content and quality of a given TIA will result in an accurate and useful analysis. General items that shall be addressed in all TIAs include:

1. Identification of the scope of the TIA,
2. Identification of existing geometric conditions and traffic control devices that are impacted by development,
3. Collection of existing traffic data,
4. Estimates and distribution of site-generated traffic,
5. Forecast of future non-site related traffic,
6. Capacity analyses and projected operational levels of service for boundary roadways and study intersections.
7. Analysis and justification of site improvements that requires deviation from established Development Guidelines. Where site improvements deviate from these guidelines, supporting documentation shall be provided that detail why these variances are justified. Furthermore, it must be demonstrated that not only will these variances and/or deviations not have an adverse impact on the adjacent transportation facilities, but that they will actually augment the operation of the existing infrastructure,
8. Identification of any roadways and/or intersections within the study area that are expected to operate at LOS D, E, or F under existing and/or projected traffic conditions,
9. Identification of improvements necessary to improve the level-of-service to an LOS of C including the geometrics, traffic control estimated costs, and who or what entity will be responsible for what costs.

## **2.7 TIA Format**

All TIAs shall be submitted to the Oklahoma County as a stand-alone document. Accompanying appendices shall be provided at the time the TIA is submitted. The number of appendix documents to be submitted shall be identified at the time of preliminary scoping meeting.

As a minimum, the items identified below establish the general outline of the report, the required maps and diagrams, all required tables, and minimum submittal requirements for any Appendices.

### **2.7.1 General Outline of Report**

#### **Table of Contents**

#### **List of Figures and Tables**

5.1 Traffic Impact Analysis Background and Requirements

5.2 Data Sources

#### **Introduction**

#### **Study Area**

5.3 Existing Land Use

5.4 Proposed Development

5.5 Existing Roadway Conditions & Traffic Counts

#### **Analysis**

5.6 Trip Generation

5.7 Trip Distribution and Trip Assignment

5.8 Projected Site Turning Movement Counts

5.9 Projected Traffic

5.10 Capacity Analyses

#### **Conclusions and Recommendations**

#### **Appendix**

### **2.7.2 Maps and Diagrams**

1. Conditions Maps and Drawings
  - Location Maps and Site Plans <sup>1,2,3</sup>
  - Master Street Plan <sup>4</sup>
  - Existing Turning Movement Count Diagram – AM Peak Hour <sup>5</sup>
  - Existing Turning Movement Count Diagram - PM Peak Hour <sup>5</sup>
  - Existing Turning Movement Count Diagram - Peak Period for Site <sup>5</sup>
  - Summary of Existing / Projected 24 Hour Volumes <sup>6</sup>
2. Trip Generation / Trip Distribution Diagrams
  - Site Trip Distribution <sup>7, 8</sup>
  - Boundary Street Projected Turning Movements – Peak Period <sup>5</sup> for Site <sup>9</sup>
3. Recommended Site Access Configuration and Roadway Improvement
  - Diagram <sup>10</sup>

### **2.7.3 Tables**

1. Land Use Characteristics and Total Site Trips Generated <sup>11</sup>
2. Site Trips Attracted from Passing Traffic (if applicable) <sup>12</sup>
3. Land Use Characteristics and Internal/External Site Trip Generated <sup>13</sup>
4. Summary of Capacity Analyses <sup>14, 15, 16,17</sup>

### **2.7.4 Conclusions and Recommendations**

As a minimum, all geometric and operational improvements necessary to provide an acceptable LOS for facilities within the project site and/or along the boundary streets of the project site shall be identified. Both on-site and off-site improvements should be evaluated. Priority should be given to beneficial off-system improvements as a means of minimizing the impact on the existing transportation system. Improvements that are to be considered for the purpose of mitigating less than an acceptable LOS shall include as a minimum: pavement widening, installation of turn lanes, installation of median islands, access control, installation of curbs and/or sidewalks, installation of traffic signalization, traffic signing, and/or pavement marking modifications.

**2.7.5. Level of Service (LOS)**

Acceptable projected levels of service shall be in accordance with the following table, “Level of Service.” To summarize, Table 1 indicates that:

1. When the LOS Without Development is LOS A, B, or C, the minimum acceptable Projected LOS shall be LOS C.
2. When the LOS Without Development is LOS D, E, or F, the minimum acceptable Projected LOS shall be equal to the LOS Without Development.

**Level of Service**

		LOS Without Development					
		A	B	C	D	E	F
Projected LOS	A	N.A.					
	B	B	N.A.				
	C	C	C	N.A.			
	D	C	C	C	N.A.		
	E	C	C	C	D	N.A.	
	F	C	C	C	D	E	N.A.

**2.7.6 Appendix**

Appendix documents shall be provided to the County at the time the TIA is submitted. The number of appendix documents to be submitted shall be identified at the time of the preliminary scoping meeting. As a minimum, the Appendix shall contain:

1. Summaries of Turning Movement Counts.
2. Summaries of 24 hour Counts.
3. Summaries of Capacity Analyses.
4. All other data necessary to support findings and recommendations.

**2.7.7 Footnotes and Explanation**

- <sup>1</sup> Show pavement marking layout and lane usage for all boundary streets. Drawing must reflect driveway locations and roadway geometry within +/- 1 foot of actual location.
- <sup>2</sup> Show driveways and land uses on both sides of all boundary streets of the proposed site.
- <sup>3</sup> All driveways and intersecting streets that connect to a boundary street shall be illustrated in sufficient detail to serve the purpose of illustrating traffic function. As a minimum, this detail shall include all lane widths, traffic islands, medians, sidewalks, curbs, and traffic control devices.

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- 4 As a minimum, drawing shall encompass a minimum four (4) mile radius from the site and shall identify all roadways designated on the ACOG Street Plan, their corresponding designation, a legend identifying roadway classifications, and the approximate location of the proposed development.
- 5 Results of the turning movement count for each location shall be overlaid on top of the Existing Conditions Layout.
- 6 Indicate existing and projected 24-hour volumes for all major roadways, as identified in the preliminary scoping meeting. Assumptions of growth rates for traffic demand and references shall be identified on this exhibit.
- 7 Indicate general directional distribution of trips to and from the development.
- 8 Indicate assignment/distribution of projected trips for the site, by movement, at each access point.
- 9 Indicate combined existing and site generated traffic and the site generated traffic volume for all movements at each intersection and/or driveway.
- 10 Diagram shall, as a minimum, indicate existing and proposed pavement marking layouts for all boundary streets, proposed modifications to existing and/or the installation of new traffic control devices, proposed on-site circulation, parking layout, pad locations, and any modifications necessary to address increases in traffic demand associated with the site development that result in significant reductions in operations.
- 11 The table shall include land use, gross leaseable area (GLA), estimated daily trip generation estimates, and trip generation rates and estimates for weekday AM, PM, and for the development peak traffic period, broken down by entering and exiting trips.
- 12 The table shall include assumptions regarding percentage of passer-by traffic associated with each land use for the development, including proper source references.
- 13 The table shall include assumptions regarding percentage of internal/external capture traffic associated with each land use for the development, including proper source references.
- 14 The table shall summarize before and after conditions associated with level-of-service (LOS) for all study intersections and access drives adjacent to the site, whether signalized and unsignalized. Furthermore, existing and proposed conditions shall be summarized side-by-side for each peak period evaluated. Special evaluation conditions shall be footnoted.
- 15 Capacity analyses will be required for each roadway infrastructure improvement in order to verify the LOS associated with a given improvement.
- 16 Capacity analyses will follow the principles established in the latest edition of the Transportation Research Board's Highway Capacity Manual (HCM) unless otherwise directed by the County Planning Director. Capacity will be reported in quantitative terms as expressed in the HCM and in terms of traffic LOS.
- 17 Capacity analyses will include traffic queuing estimates for all critical applications where length of queues is a design parameter (i.e., auxiliary turn lanes, traffic gates, etc.).

## **2.8 Submittal Requirements**

Upon completion of the TIA, five (5) copies will be submitted to the County Planning Director or his/her designee. Up to ten (10) additional copies could be required if deemed necessary by the County. An initial review of the study will be made to determine if the TIA was developed in accordance with the technical requirements and within the scope of the study as outlined in the preliminary scoping meeting. If deviations from the technical requirements and/or the scope of study, as established during the preliminary scoping meeting are identified, the initial review will be terminated until the said deviations are addressed. A notice of technical deficiencies will be developed by the County and submitted to appropriate County personnel and to the traffic consultant at such time as deficiencies are identified. All copies will be returned to the traffic consultant at that time as well.

Upon submittal of a TIA meeting the technical and scoping requirements established in the preliminary scoping meeting, final review of the TIA will be conducted. If during the course of the final review it is determined that additional information is needed, a written request for addendum will be provided to the traffic consultant. No more than one request for addendum will be requested and/or required for a given TIA.

Following completion of the final review, written recommendations regarding any requested variances, observations, objections to and/or concurrence with the findings of the study will be provided to appropriate Oklahoma County personnel and to the project developer or traffic consultant.

